

MANUFACTURERS' RECORD

A Weekly

Southern Industrial and Hardware

Newspaper.

VOL. XII. NO. 25. {
WEEKLY.

BALTIMORE, JANUARY 28, 1888.

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Report of the **AQUEDUCT** Commissioners.

[NEW CROTON AQUEDUCT, NEW YORK.]

AN ELABORATE VOLUME, CONTAINING AUTHORITATIVE TABLES BY THE CHIEF ENG. B. S. CHURCH. JUST ISSUED.

PLANT (by actual count from Table 13.)

Number of Ingersoll Drills used..... 249
Number of Drills of all other kinds..... 103
All headings where Ingersoll Drills were used exclusively have been completed, except the section under

PROGRESS (by actual figures from Table 8.)

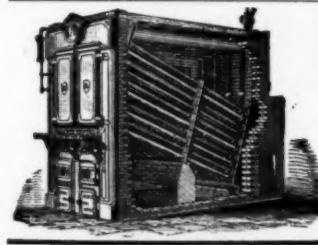
Average weekly progress in best 10 headings that used Ingersoll Drills exclusively (omitting all idle weeks)..... 38.73
Average weekly progress in best 10 headings that used other drills exclusively (omitting all idle weeks)..... 31.88
DIFERENCE OF 20 PER CENT. IN FAVOR OF INGERSOLL DRILLS.

Harlem River, now being driven by Ingersoll Drills and Air Compressors. Send for description of Aqueduct,

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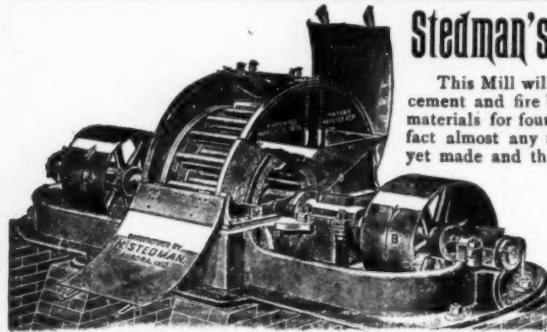
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WILLIAM H. SMITH, Eng., 115 Dearborn St., Chicago, Ill.
CHARLES E. ASHROFT, Eng., 49 Mason Bldg., Boston, Mass.
JOHN S. MOORE, 109 Gravier Street, New Orleans, La.
T. B. PACKER, Shiedley Building, Kansas City, Mo.
V. MERRILL, 149 N. Third Street, Phila., Pa.
WIGGS & BACON CO., Birmingham, Ala.

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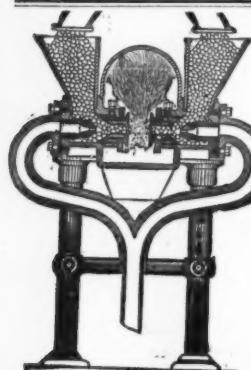


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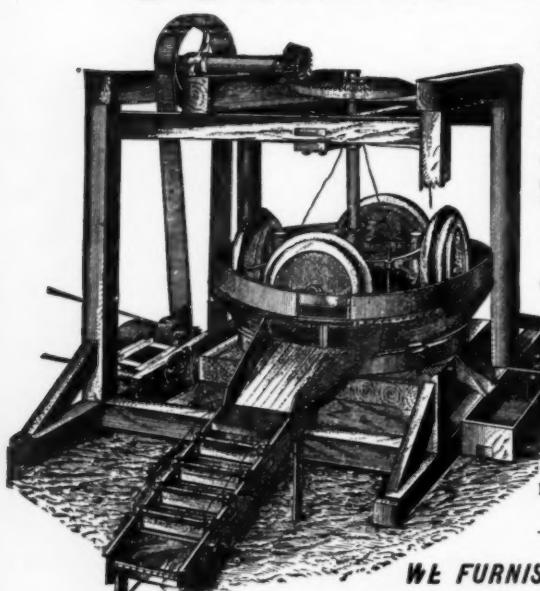
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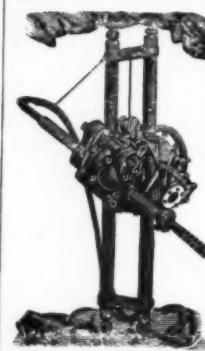
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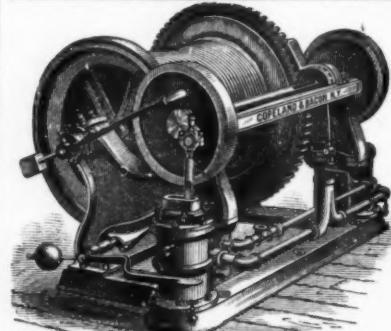
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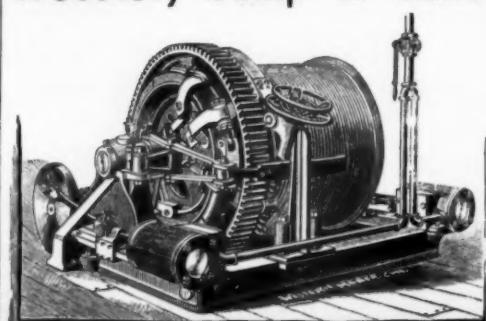
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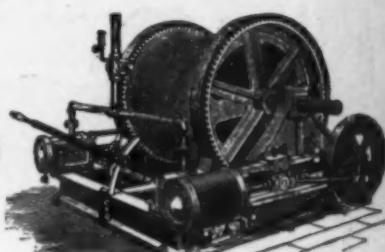
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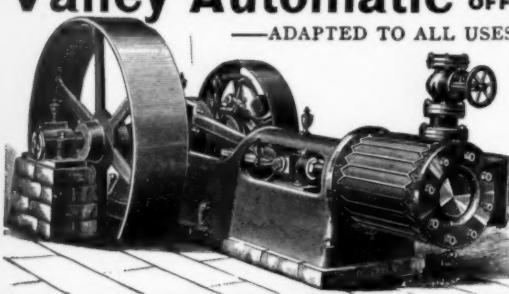
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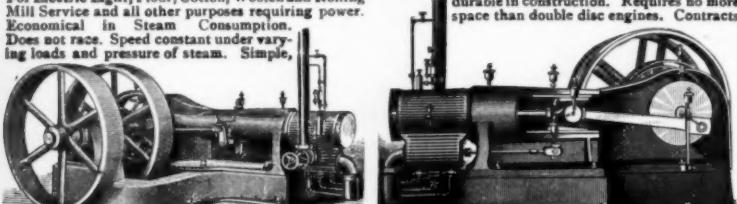
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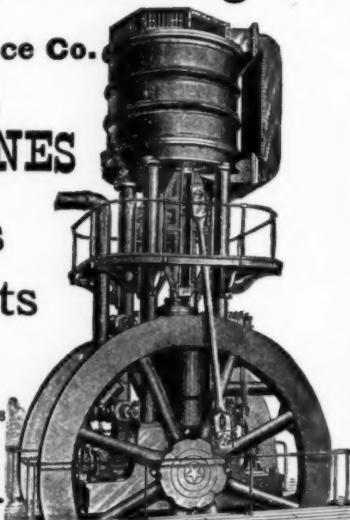
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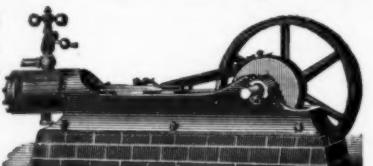
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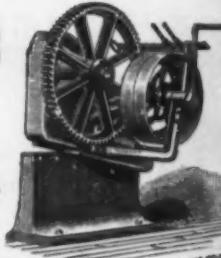
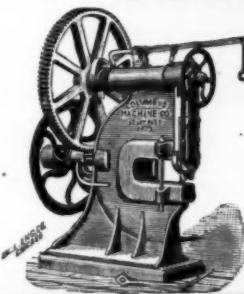
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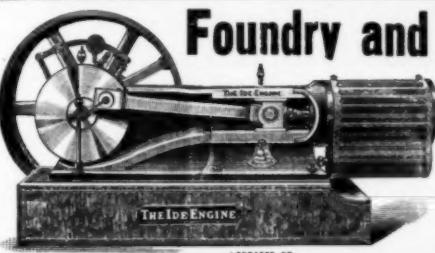
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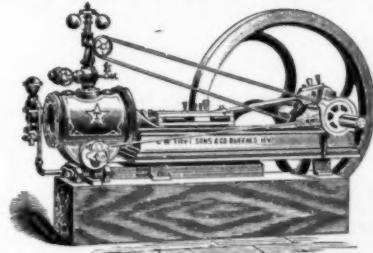
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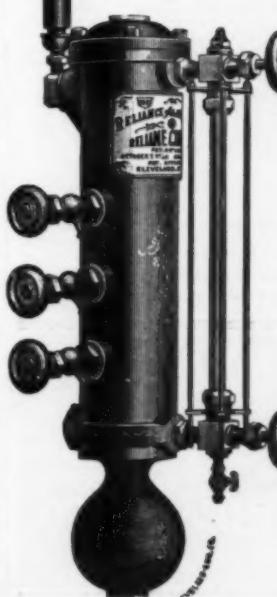
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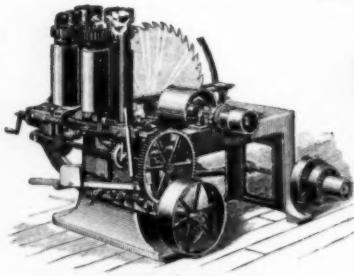
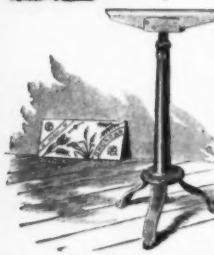
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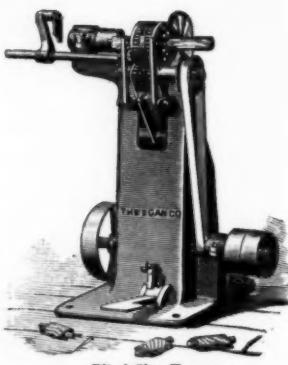
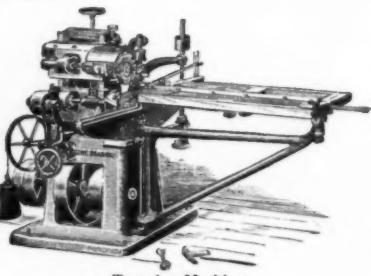


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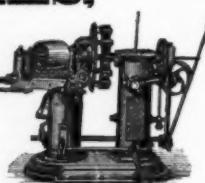
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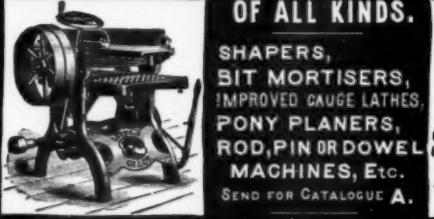
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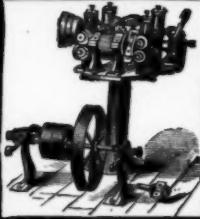
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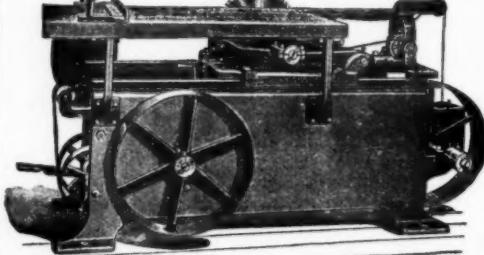
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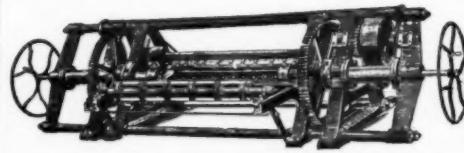
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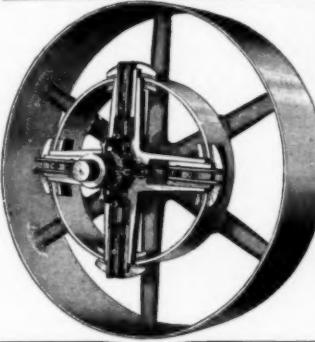
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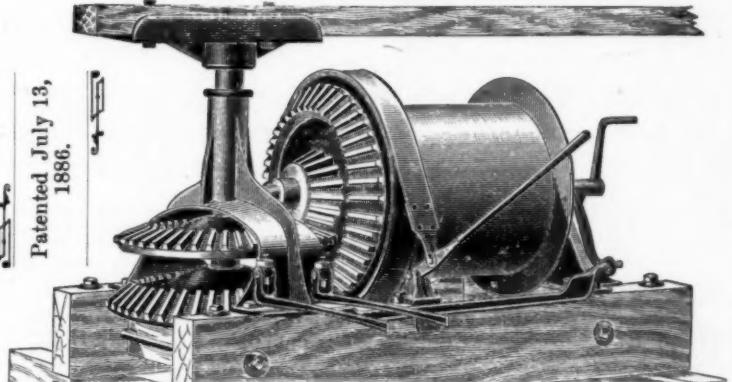
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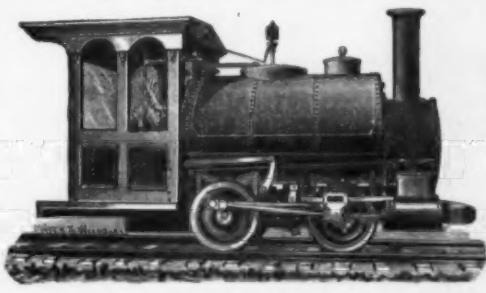
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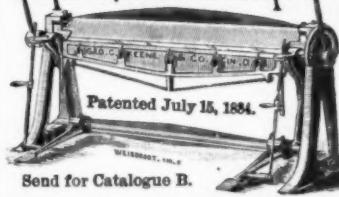
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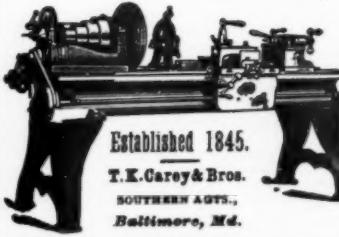
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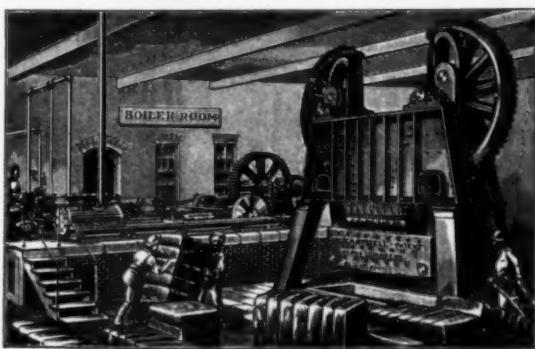
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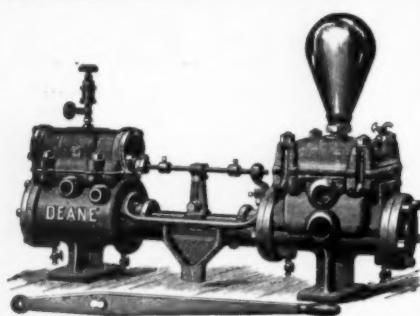
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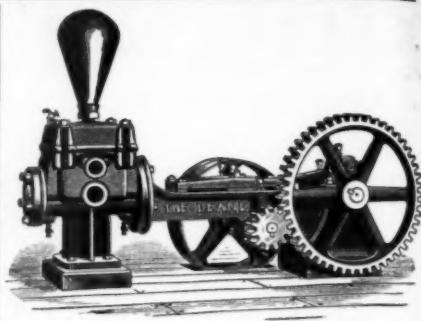


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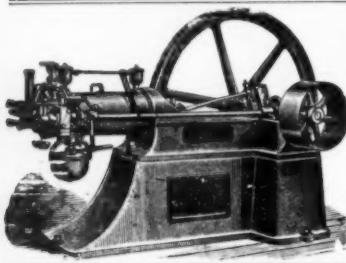
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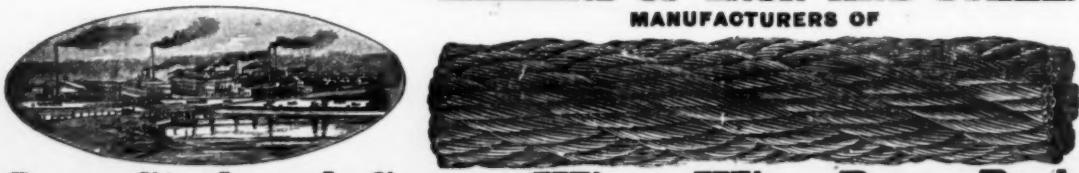
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BALTIMORE, JANUARY 28, 1888.

Refund the Cotton Tax.

A bill passed the United States Senate one day last week, and has gone to the House, the object of which is to refund to the States and Territories the moneys collected from them under the direct tax law enacted August 5th, 1861. While this bill was under consideration Senator Vance, of North Carolina, introduced an amendment providing for the refunding to the South of the \$68,000,000 collected by virtue of the cotton tax bill of 1862. Although that amendment was not adopted, it received 16 votes, showing that a considerable number of Senators appreciate the justice of the proposition. The MANUFACTURERS' RECORD sincerely hopes that the amendment of Senator Vance will be renewed in the House and pass that body as a part of the original Senate bill. There can be no well grounded argument against either the justice or the wisdom of the act as amended, while it is fairly debatable whether the appropriation called for by the Senate bill, without the other, would be just to the people of all sections. The pending measure would take \$17,350,000 from the public treasury. The refunding of the cotton tax would require nearly \$68,000,000. If an act for the payment of both these equitable claims were passed it would deplete the treasury upwards of \$85,000,000. The withdrawal of this great sum would relieve the minds of all who share the apprehensions of President Cleveland by removing the dangerous surplus, while at the same time the people of every section would share the benefits resulting from its disbursement. The Senator from North Carolina is entitled to the thanks of the people for bringing this question before Congress. We hope that many members of the House will make it their personal business to have the amendment renewed and the bill providing for the refunding of both classes of claims passed by a handsome majority. The situation can never be more favorable than now for pressing this measure to a successful conclusion.

IF our readers will examine our Construction Department this week they will find that 20 to 25 Southern cotton mills are putting in new machinery, in addition to the many previously reported. This is something of a harvest time with manufacturers of textile machinery.

Southern Tariff Opinion.

One of the best contributions to the tariff literature of the day is a pamphlet of about 60 pages by C. L. Edwards, of Ennis, Texas. It is dedicated "to my countrymen of the South who work for a living." Mr. Edwards opens with the statement that: "The colonels and brigadiers have controlled the politics of this part of the country for a good long time. The captains and majors and brevet colonels have also chimed in, but the voice of the ex-Confederate private has not been heard," and then he remarks that "one of this long silent class, who answered to roll call and figured in the bullet department, now asserts the right to speak out in meeting." And speak out he does, and that most instructively, and often very sarcastically, but always good humoredly. The publisher says on the cover of the pamphlet, "price 25 cents; and worth it." It is the best investment for 25 cents that we know of, and we trust every reader of the MANUFACTURERS' RECORD, especially the editors of our esteemed Southern free trade contemporaries, will buy it and read it.

The Chicago Inter-Ocean says of it:

"It should not be supposed that Mr. Edwards' little book is adapted only to Southern readers; it is a work for every farmer, every workman, and every trader in the land to read; it gives as concise a history of all tariff legislation from 1789 to 1883 as can be desired for general reading, and is exact and forcible in its comments on the effects of each tariff law on the finances of the country.

The pages of the book which are addressed specially to Southern readers are full of strong satire; they are reminded that the most effective destroyer of Southern hopes of successful secession was that very free trade which the plotters of secession adored. When the skeleton of a Confederate navy was knocked to pieces by Union vessels, the South found that its contempt of home industries had resulted in no factories to weave its cotton or its wool, no furnaces to melt or foundries to mold its rich supplies of iron, and thus it came to pass that it could neither feed nor clothe nor arm its soldiers. But Mr. Edwards accepts the results of the war in good faith, and reminds "his countrymen who work for a living" that "when the planter's slaves increased and his granaries were filled his next neighbor was not benefited; but when a factory was built in a Northern village values increased in all the neighborhood; employment was given to idle hands, money was put into empty pockets." And he ridicules the simplicity of his "countrymen who work for a living" in continuing to be deluded by majors and brigadier generals who denounce tariff, while the interest of the Southern farmer, planter, and laborer is to protect rice, sugar, iron, and semi-tropical fruits to a degree which will give them the full benefit of the great market of the United States. And he also points out the benefits of local home markets in manufacturing centers for the odds and ends of farm produce, chickens, eggs, butter, and things from which small farmers in isolated neighborhoods derive scant profit.

To do justice to this timely production would be to quote it in full. The philosophy of tariff, its history, its effects, are all boldly sketched, and the arguments are presented with originality of expression."

As the Inter-Ocean says, to do it

justice would be to quote it in full. That we cannot do, but we quote very liberally from it elsewhere in this issue. We have not attempted to quote any of the historical points, nor have we quoted the book consecutively, having merely grouped together some of the most interesting points for Southern readers. While we have given a very large amount of space to it, it is well worth it. We are confident our readers will find it a most interesting article, well repaying the time required to read it.

The production of pig iron by States in 1887 as compared with 1885 and 1886, as reported by the American Iron & Steel Association, was as follows:

States.	Tons of 2,000 pounds.		
	1885.	1886.	1887.
Maine.....	449	5,060	4,397
Massachusetts.....	869	6,124	11,114
Connecticut.....	17,500	19,399	21,741
New York.....	160,157	133,888	206,572
New Jersey.....	73,607	157,886	179,554
Pennsylvania.....	844,496	3,293,089	3,684,618
Maryland.....	17,299	30,500	37,497
Virginia.....	163,768	150,820	175,715
North Carolina.....	1,790	8,300	3,640
Georgia.....	39,944	46,490	40,647
Alabama.....	227,738	283,859	292,762
Texas.....	1,843	3,250	4,383
West Virginia.....	69,007	95,618	82,312
Kentucky.....	37,553	54,044	41,997
Tennessee.....	161,109	190,166	190,344
Ohio.....	353,903	608,044	975,539
Indiana.....	6,634	16,660	13,211
Illinois.....	327,977	501,795	465,453
Michigan.....	143,101	190,734	133,543
Wisconsin.....	36,639	65,933	133,508
Missouri.....	51,408	74,593	130,643
Colorado.....	54,811	10,451	25,991
Oregon.....	3,833	—	—
California.....	—	—	1,750
Washington Territory.....	1,837	8,842	1,586
Total.....	4,589,869	6,365,388	7,187,206

The Southern States do not, of course, show any great increase for 1887, for the reason often mentioned that the many new furnaces under construction during that year have not as yet, with one or two exceptions, gone into blast. These furnaces will not, as a general thing, be finished until about the middle of the year, and some not until near the end of 1888, but enough will go into blast to show a decided increase in Southern pig iron production during the latter half of the year. About the beginning of 1889 the South will be at work in earnest in turning out iron. Now it is building furnaces; then it will be operating them.

How the Herald Works.

If the New York Herald knows that its Ionia, Mich., correspondent lied, then it ought to have the manliness to acknowledge it. Any newspaper may be victimized by a mendacious correspondent.

The story printed by the Herald about Congressman Henderson and the Metropolitan Hotel banquet has been proved to be maliciously false. Yet the Herald has never expressed any regrets whatever, but has endeavored to stand by its romancing contributor.

It is time that the "leading newspaper in the United States" should "tote fair" and be just, or else acknowledge that it prints a sensation, without regard to the facts, and never makes any correction. It has libeled Mr. Henderson, and never offered any decent reparation.—Wilmington (N. C.) Messenger.

And yet when the Herald slanders the South and seeks by the most outrageous falsehoods to stop Northern investments in Southern enterprises, some Southern papers, without any attempt to learn the truth, republish these statements with even more glaring head lines than the Herald uses.

It is not fair for Southern advocates of a high tariff to affirm that the modern "trusts" are not the offshoot of a prohibitory protection. Out of the system of taxation which cuts off competition from abroad and narrows the field has issued the "trust," and if the people do not rise in their might and crush out this privileged monster, then they will be reduced to a thraldom that will impoverish every mother's son of us.—Wilmington (N. C.) Messenger.

Oh yes, of course, protection is to blame. We wonder some of our free trade friends do not claim that sin was introduced into the world through protection. Of course it was protection which "cuts off competition from abroad" that caused the organization of the Standard Oil Co., the parent of all these "trusts," but for the life of us, we cannot see just where the tariff comes in in that case. Were tariff laws keeping out the product of any oil fields in the old world, and thus enabling Rockafellar and his friends to form this giant monopoly? Was it tariff on cotton seed that helped them to form the Cotton Oil Trust, whose power fortunately has been broken by the organization, largely through the fight of the MANUFACTURERS' RECORD, as told in our last issue, of an independent company? Merely to ask these questions shows the absurdity of blaming protection. We all know that the Standard Oil Co. was the first great "trust," and that the tariff is in no way whatever to blame for it. The marvellous success of the Standard, the first of its kind, has naturally led other men to form similar combinations. The New York Herald, in its late article on "trusts," classes the trunk line pooling arrangement, the Bell Telephone Co., the combination of bonded warehouses, &c., all as "trusts," and we are asked to believe that protection is responsible for "trusts." Verily it requires a vivid imagination to see the connection. If our free trade friends can find no better argument against the tariff than this, we advise them to quit the business.

FUEL gas, as against natural gas, continues to attract attention. A correspondent of the Chicago Journal of Commerce says that he has offers from "prominent metallurgical engineers offering to erect gas furnaces or producers that will furnish enough gas to heat a ton of ingots from 290 pounds of slack coal. At this rate ingots can be heated at less than 40 cents per ton for gas, including labor and wear and tear of producers, which is not more than is charged for natural gas in the city of Pittsburgh." This fuel gas may mean much for the South, by enabling its iron men to still further lower the cost of production.

THE St. Louis Lumberman, mentioned last week, has made its appearance. No. 1, vol. 1, presents a very handsome appearance, and gives evidence of having come to stay. We extend our best wishes for abundant success.

MANUFACTURERS' RECORD.

Technical Schools for the South.

The Institute of Technology in Boston, Mass., is a school whose benefits are felt in every section of the United States, for the high, solid, scientific and industrial training there given has furnished the country with a body of young men able to meet the requirements of the age, and to push forward all forms of industrial development. It has been truly said by a Northern contemporary that "this school is in many respects the greatest purely industrial and scientific school in the world." It aims to teach American youth those principles and methods which have in the experiences of ages been proven to be the most practical and the most economical. In its inculcations there is no nonsense. It is the "Grad-grind" of all educational institutions, for facts are what it seeks to find, and nothing else will content it. Now this grand country of ours, old as to its creation, new, comparatively, as to its occupancy by civilized men, is a vast storehouse of facts that must be brought to light by steady, laborious, enthusiastic investigation. These facts take the solid forms of iron, copper, gold, silver, and lead; of granite, marble and sandstone; of coal for fuel and limestone for fluxing; of sand for glass making and kaolin for pottery; of timbers and forestry; of natural materials whose constituents, deftly separated by the chemist's unerring skill, can be applied to the useful and the beautiful arts. Beyond these are other facts, intangible until their secrets were discovered, that are part and parcel of the economies of nature, but that having been revealed and measured, have become essentials of human success and progress. The power to pile stones upon stones in fair architectural proportions and secure to the structure a solidity equal to that nature gave to the mountains from which they were quarried, the power to twine threads of steel into cables strong enough to bridge broad rivers and bear upon their firm strands the unceasing procession of the populations of great cities; the power to measure electric forces and to chain them to man's use; the power to study all the wonders of God in nature and to subdue them to human uses, these are the powers with which the students of this Massachusetts school are in proportion to the measure of their individual capacities, invested. The old Puritan commonwealth that looks out upon Massachusetts Bay, and that considers Plymouth Rock the altar at which the nation should worship, has done many noble things, but not one other that can compare at all in practical beneficence to its action in establishing and maintaining the Institute of Technology.

Next to this, and following closely its example and methods, there is in Louisiana that noble individual foundation, the Tulane University, in

which is a similar school, which, although as yet only entering upon the threshold of its usefulness is destined to be one of the potential agencies for advancing industries and art throughout the land. Nor are these all, for in this practical era, when men's minds are occupied with the tremendous industrial movement that is fast transforming many localities in the Southern States from idyllic agricultural communities into busy and noisy manufacturing centers, there is an increasing appreciation of those sciences which give to mining, to machinery and to all forms of mechanism their potency. The one time favorite orators who could weave beautiful and poetical thoughts into sentences that delighted men's ears, can no longer charm Southern audiences when there are practical men to be heard. The young man who understands and can manage the powerful engine that keeps a thousand spindles in motion is more highly esteemed by Southern maidens than his dapper and more dressy rival of the dry goods counter or the law office. This change is affecting the South in many ways, but in none to such an extent as in the new ideas that are influencing the children and youth. Even the toys given to the boys are significant of the difference between the present and the past. In fact, all signs, small as well as great, show that the South has crossed the threshold of an industrial era whose greatness the wisest among us cannot foresee. The one supreme duty of the South to day is to recognize the responsibilities as well as the promise of the situation, and to act accordingly. Our Southern boys cannot all go to Boston or to New Orleans to acquire in those technical schools the knowledge and skill essential to success. They must have some or all of these instructions nearer home. The States, through their legislatures, must assist in establishing local technical schools in which their ambitious and energetic boys may learn what they are anxious to know. Some of them have started on the right track in a modest way, but those that have begun could, with marked advantage, increase the scope of their efforts, while all the remainder ought at the earliest opportunity to enter upon the work. If we would keep our ambitious and energetic youth at home and have them share in the prosperity and glory of the future of the South, we must provide for them that technical instruction that is demanded by the progress of the age, and thus fit them to be masters of the destinies of the New South, as their fathers were of its historic past.

THE Piedmont Manufacturing Co., of Greenville, S. C., of which Mr. H. P. Hammett, one of the most notably successful cotton manufacturers of the South, is president, have voted to build another mill to hold 10,000 spindles. This will make 3 mills and 45,000 spindles under Col. Hammett's management, and thus the good work goes bravely on.

BECAUSE the Baltimore Board of Trade at a recent meeting passed a resolution favoring tariff reduction and free raw material, etc., the report has gone forth that "Maryland manufacturers are decidedly favorable to the views as presented by the President." That is a pretty good joke. The Board of Trade is an eminently respectable body, in fact, almost too eminently respectable. It consists practically of about 10 or 12 very eminent, very wealthy and very conservative men, who annually re-elect themselves directors, and as such they meet once a month and their deliberations are sent out as a report of the Board of Trade. These gentlemen re-elect themselves because there is nobody else to elect them. There are a hundred or so of business men in the city who, from a time when the memory of man runneth not to the contrary, have paid \$3 a year as subscribers to the Board of Trade, but they never attend its annual meetings, never vote, and, in fact, do nothing for it except keep up the old form of paying \$3 a year, and so the 10 or 12 directors have to vote themselves into office every year to keep the good old concern alive; and for 10 years, we venture, that there have never been as many as 12 ballots. They are the representative men in their lines, but they are mainly engaged in some branch of the shipping business and their interests are in that direction. Of course they want free raw material and a lower tariff, for this would increase the imports of foreign materials and thus increase their business.

AUGUSTA, GA., has fixed the dates for her National Exposition from October 10 to November 3. By beginning work in good time all the details so essential to success can be properly attended to. The people of that city are heartily in earnest, the merchants, the manufacturers, clerks and mechanics alike being united in the effort to make a grand exhibition that will do, not only Augusta, but all the central South, much good.

MESSRS. HENRY DISSTON & SONS, of Philadelphia, who were mentioned last week as having introduced the Loomis fuel gas into their works, write the MANUFACTURERS' RECORD as follows:

"In reply to your letter of 14th, it gives us pleasure to state that the Loomis gas machinery works to our entire satisfaction, and we consider it such an improvement over other systems that we are now constructing a plant of sufficient capacity to supply our forge and hardening shops and new steel mill, being satisfied that we can make a large saving and get an increased amount and better quality of work. The great feature of economy in this process consists in the use of bituminous slack alone, or a mixture of it with anthracite dust."

WE acknowledge receipt from Major L. A. Ransom, of Columbia, S. C., of a reprint in pamphlet form of his admirable review of "South Carolina in 1888," published recently in the Charleston News and Courier. This pamphlet tells the tale of South Carolina's progress in eloquent figures.

SOUTHERN TARIFF TALK.

What a Member of the 'Bullet Department' of the late Confederacy says about the Tariff in its Relation to the South.

*By C. L. EDWARDS, of the Ennis County Bar, Ennis, Texas.

Wherever manufacturing enterprises have gained a foothold in the Southern States, right there can be found a community of protectionists. Every factory, mill, foundry, furnace or kindred establishment brings together a working and wage earning population. These people must be fed, housed and supplied with the necessities of life. Artisan populations are drawn from the surrounding farms. It is so in Columbus, Augusta, Atlanta, Birmingham, Knoxville and every manufacturing city in the South. Every time a hand leaves the farm and goes into a factory, farm production is lessened to that extent. Wages from a new source are drawn to pay other farmers for the supplies of the new consumer. Those who formerly helped to glut the local markets with farm products, after going to the factories, become consumers, and sharpen the demand for the produce of other farmers. Hundreds of women and children, who, before, were a burden to those on whom they depended, find profitable employment, and are the better able to supply themselves with necessities. They now assist and help to a competence those whom they once weighted down. In this way those who live near manufacturing towns discontinue the cultivation of staple agricultural products, such as corn, cotton and wheat. The demand for the smaller farm produce, as milk, fruit, poultry, vegetables and the like, causes the owners of land to sell it off in small parcels. These sub-divisions are devoted to fruit, dairy and vegetable productions. The lands, as well as their owners, step out of the line of regular farm industry; are withdrawn from competition with the producers of corn, wheat and cotton. Instead of helping in the profitless work of over-production, they in turn become dependent upon the regular farmer for their supplies. In the meantime, lands in all that vicinity increase in value, and besides the better markets thus brought about, the factory, shop or mill adds to the wealth of the man on the farm. Up to this time, except in a few manufacturing districts, Southern farmers have enjoyed few of the benefits of the protective system. In common with all others they share the advantage of the decrease in prices of what they buy. But they need a better market to sell in, especially their small products. They have not yet received the benefits of an advance in the values of their lands, nor of profitable employment for our people. Only those amongst whom industrial enterprises have become established, reap all these benefits. Our time is coming. In Birmingham and a dozen other towns in North Alabama, the iron industry has caused an immense influx of wealth, and given good employment to thousands who never had it before. Owners of land that had been considered worthless for generations, are now possessed of fortunes. So of many localities in North Carolina, Virginia and Tennessee, where great stores of iron and coal, in being brought to light, bring with them wealth, employment and happiness to thousands.

The free-trade element in the South is living on tradition. The one great duty that presents itself to every Southern man who loves his people and loves his country is to strive to disarm the prejudices of the

*Republished from a pamphlet, "The Protective Tariff," by C. L. Edwards, of Ennis, Texas. See editorial in this issue on same subject.

olden time. The building up and development that has so auspiciously commenced will perish in the atmosphere of free trade. With the removal of the protective duties the industries of the South could not compete with those of the North in the struggle for existence. It is to our interest that the American policy should continue to prevail. Other Southern crops receive no protection. Sugar and rice, with mere revenue duties, have all the while languished. Every product of the Northern farmer or manufacturer is jealously guarded by protective duties, because it is demanded. Our farmers send men to Congress who get as many Southern products as possible on the free list, and demand a tariff for revenue on the rest. They are taken at their word so far as our people are concerned. If sugar and rice were grown at the North they would be shielded by duties approximating the cost of production.

Whether right or wrong, the American people believe in protection. Those who have built up under the system desire its continuance. Those who do not believe in it have not built up.

COMPARISONS ARE ODOIOS.

It will not do to fall behind the worn out plea that we are an agricultural people. The North and Northwest are far ahead of us in agriculture. With them, agriculture and manufactures have kept even pace. The factory is the best patron the farm ever had and they have found it out. We do something in the way of agriculture and but little else. They believe in protection, diversify their industries, and all prosper together. Let us compare the two States of Texas and Iowa. Both were admitted to the Union in 1845; their populations were then and in 1880 nearly equal. Neither State was devastated by the war. Texas has an area some five times that of Iowa, and double the amount of agricultural lands. The climates of the two States are widely different. We seldom have more than a month of cold weather; our spring and fall seasons are long and delightful, and the summers tempered with pleasant breezes. In Iowa the ice king sits enthroned half the year and often more. Her prairies are the home of the blizzard from October until April, and the rallying ground of the storm-god the rest of the year. When her people are muffling themselves in woolens and furs against the rigors of winter, ours go in their shirt-sleeves and sleep under sheets; yet, strange to say, we raise sheep and cry out against the duties on wool and woolen goods, while the people of Iowa, who buy and use them, believe in protection and make no complaint whatever. For those who can remember as far back as the glorious free-trade era of 1860, know that those necessities cost more then than now. The figures below are taken from the compendium of the Tenth Census.

	Iowa.	Texas.
Capital in Manufactures....	\$ 33,987,886	\$ 9,245,561
Persons Employed.....	88,373	12,159
Value of Manufactured Products.....	\$71,045,606	\$20,719,928
Wages Paid.....	\$9,725,606	\$3,343,987
Value Farm Implements Manuf.....	\$1,377,870	\$143,700
Farms, Acres Improved.....	19,866,541	19,650,314
Value of Farms.....	\$507,430,247	\$170,468,886
Value of Farm Imp. & Mach.....	\$9,371,884	\$9,057,491
Value of all Farm Products.....	\$12,103,473	\$25,204,329
Value of Live Stock.....	\$124,715,103	\$60,307,987
Illiterate Voters—white.....	16,202	33,085
Illiterate Voters—colored.....	1,009	59,669

From the same source we are informed that Texas has 38 more idiots than Iowa, but the record is silent as to whether they constitute part of the force who instruct the people in politics. Iowa had 7,907 miles of railway; Texas, 7,234. In 1886, Iowa had 605 banks, national and private, with an aggregate capital of over \$35,600,000; Texas had 191 banks, with a capital of less than \$15,000,000.

SPECIMENS OF THRIFT.

When a Texas farmer raises a wheat crop, it goes off to hunt a mill, and having found it, the flour is shipped back to him.

He pays freight both ways. The Northern miller takes toll for grinding, and out of it pays his employees. Our farmers have not yet learned that their hostility to manufacturers keeps away the man who makes wheat into flour along with the man who makes wool and cotton into cloth. They have not yet realized that the distance between producers, consumers and manufacturers, supports the railroads and the ships; nor that wherever a manufactory is located these classes are in a measure brought together, and hundreds of freight bills wiped away. In the new States, and even in the Territories of the Northwest where the doctrine of protection is believed in, the flouring mills are crowding upon the wheat fields. Minnesota farmers raise wheat and Minnesota millers grind it, giving employment to thousands of the people of that State. They, in turn, are able, from the wages received, to purchase other supplies from those same farmers, and all prosper together. Industrial establishments of different kinds spring up in the vicinity of these great flouring mills. There is a large interchange of their respective products, and one sustains the other. To the extent of their mutual dealings, to the extent they supply the people in their vicinity, freight bills disappear. Of the wheat exported even from Dakota, almost half of it goes abroad as flour. The toll is left with the people of the Northwest. We, on the contrary, oppose a policy which confers benefits upon all who avail themselves of it. Though the waters are troubled, we are loth to step in and be healed. Worse still is the desire to injure, by mischievous legislation, those who have been more provident than ourselves. Israel, in the desert, never lusted more for the flesh-pots of Egypt than do we to return to the old days of low tariffs, foreign goods, high prices and bills of lading reaching round the world.

The older Southern States have more water power than all New England; but hostility to protection has kept the cotton mill far away from the cotton field. Except some thousands of bales manufactured at home, one third of the cotton crop is burdened with the cost of transportation to the North; the other two-thirds to Europe. The producer foots the larger portion of the freight bills, while the profits of its manufacture are pocketed by other peoples. Suppose we discontinue our factious opposition and declare for protection, how long before the cotton manufacturing interest would gravitate towards the bases of cotton supply? We certainly would be gainers by the change, and it is time we were learning that men who have sense enough to accumulate money are not anxious to risk it amongst those who are eternally threatening the destruction of their investments.

New England, more than a thousand miles away, has built cities and grown rich by the manufacture of our cotton. Her agriculture has so flourished that she has long since left off raising the staples of the farm. Her cold, stony soil, lying in the grip of winter for more than half the year, has a summer verdure like Eden. Her arable lands, sub-divided into stock, fruit, dairy farms and gardens, have become of marvelous value, and their produce is sold to the people of manufacturing cities at prices that are remunerative away beyond ordinary agriculture. Sixty years ago there was little on her rivers besides some sand, rocks and water running down hill. These and the practical sense of her people were the sum total of her natural advantages. They took hold of protection and used it for their benefit. The system that helped them will help us, if permitted. New York and Ohio have prospered exceedingly; so has New Jersey. Pennsylvania has grown rich

almost "beyond the dreams of avarice." Black diamonds and iron crowns have been wrested from her rugged hillsides. Cities have been built and palaces reared that would discount the best performances of Aladdin's lamp. Delvers in mine and shop have become lords of mill and furnace. The hand of Midas has been laid upon their industries. Plodding farmers have become wealthy proprietors. So of all the manufacturing States. In Wisconsin, Michigan, Illinois and Indiana, agriculture and manufactures go hand in hand with each other. In all those States farm hands once received \$8 per month for six months in the year. They now get \$25 to \$30 per month the year round. In Texas, where farm wages are better than in any other Southern State, a young man on a farm does well to get a full year's employment at \$15 per month, although we have a soil as productive as ever fell from the hands of the Maker. Our farmers make cotton to be sold at a low price and sent off on a foreign tour, while Northern farmers who believe in protection, feed the operatives who work up that same cotton. Ours may have a large surplus of fruits, melons, poultry, butter and the like, but our towns are small, without manufacturing populations, and small quantities of such products will glut a market. These farmers have never suspected that they are in any manner the authors of the mischief. On the contrary, when politics come round every two years, and a double dose every four, they hide themselves to the political gathering, hoping, as they have vainly hoped for years, that by some turn in the management of public affairs, the ills of their condition may be cured. A favorite politician addresses them from the hustings; they listen to anathemas against rich men, railroads, corporations, manufacturing monopolies and the protective tariff, and shout approval until hoarse. They return to their homes embittered in spirit, strengthened in prejudice, steeped in error, feeling like anarchists, and, for the time, would be right glad, if they could, to accomplish by legislation what the Chicago mob seeks to do by bomb and torch. By such methods hundreds of millions of idle capital that would readily seek investment in the South is kept away. Begrudging a fair profit to the manufacturer, we keep ourselves in the hands of usurers.

Let us look further at results. Some of us remember the glorious days of comparative free trade from 1857 to 1860. Iron used by blacksmiths cost double what it does now. Imported iron was in general use. Some bought imported cast steel in bars to make shovel plows and sweeps. This cost at retail 12½ cents per pound. The smith cut it out and worked it up. Ploughshares then costing \$1 to \$1.50 can now be had at from 30 to 50 cents. Axes, chains and all farm hardware are reduced in price at least one-half. Calicoes that sold in country stores at 12 and 15 cents per yard can now be bought for 4, 5 and 6 cents. So of other cotton goods. A better wagon is now sold for \$60 than could then be had for \$100; and so with a thousand articles entering into the uses of every day life. These reductions have come with the change from foreign to domestic manufactures; by the competition of Americans who have prospered under protection. Hamilton's doctrines have been more than verified. It requires no statistics to prove these things; they have come under our own observation.

There are those who say that improved machinery has wrought these results, and that the foreigner works still more cheaply. Granted; but before we had protection we had few machines, and the foreign manufacturer never did reduce his price-lists until forced to do so by our own citizens. Protection gave us the machines, and the

inventive genius of the American has continually improved them.

We continue to clamor for sweeping reductions of duties, demanding that numbers of articles grown or manufactured in this country be placed upon the free list, and that duties on imports be reduced to a strict revenue basis. To grant our petitions would plague us as sorely as were the frogs in the fable who prayed for a king. Hundreds of industries that have grown up under the protective system would be wrecked, and nearly all would be endangered. Low rates of ocean freight, the cheaper labor, plant and capital of foreigners would enable them to land unlimited supplies of their products upon our shores. Wages of American operatives would be reduced; hundreds of thousands of them would be thrown out of employment. Manufactories, costing in the aggregate hundreds of millions, would be idle. Four times out of five in the history of the country bankruptcy and panic have followed the mischievous legislation of tariff reformers.

The ruin of our manufactures accomplished, and the American demand transferred to the foreigner, prices would advance—possibly to the free-trade standard of 1860. In the meantime our own operatives would be driven by swarms to seek employment in agriculture. Instead of buying and consuming farmers' products as they now do, they would help to swell the volume of farm production which, for want of a domestic demand, would be forced to seek unprofitable foreign markets.

Internal revenue taxes for the fiscal year ending June 30, 1887, amounted in round numbers to \$118,000,000. Of this, \$80,000,000 came from tobacco, \$21,000,000 from ale and beer, and \$65,000,000 from distilled liquors. These imposts are direct, onerous and hateful. Relief from a large part of our federal taxation and an honest application of the accumulated surplus to national purposes are inexorable demands of the people of the United States. What could be better than to strike first and strike hard at internal revenues? Their reduction to the extent of the annual surplus and the final abolition of the system are required by every consideration of statesmanship and of patriotism.

Above all the world, Southern Democrats claim to be disciples of Mr Jefferson. It is also currently reported that his satanic majesty is well up in theology. By what precept of their patron saint did our Southern Congressman ignore the iniquities of the internal revenue system, and join Mr. Morrison in his "horizontal" assault upon the tariff? Judged by its preamble, Mr. Morrison's bill for reducing the national revenues was aimed at war taxes. Now, the internal revenues are war taxes in the strictest sense; the present system was born of the late war. Worse still it brings the hand of Federal power into the homes of the people. If Thomas Jefferson taught anything, it was that the general government should intermeddle to the least extent possible in the affairs of the States; that the shadows of its min'ons should not cross the thresholds of American citizens. In the collection of internal revenues these principles are wantonly violated. Worse still, it rests heavily upon the South. Tobacco, a Southern crop, pays \$30,000,000 a year internal taxes. Thousands upon thousands of Southern farmers who raise it are hampered by regulations that in sheer despotism would do justice to the code of Russia. Missouri, Virginia, North Carolina and Kentucky, States largely engaged in the production of tobacco, are peculiarly plagued. Besides a number of Federal statutes, which defy the understanding of lawyers, there are department regulations and rulings of the Commissioner of Internal Revenue that are unknown and unpublished. Practi-

MANUFACTURERS' RECORD.

cally, they are confided to collectors, marshals and deputies, and are made known to the man who raises or handles tobacco only when he is arrested, charged with their violation. Woe unto the producer who sells a handful of tobacco to his neighbor or to any other person than a licensed dealer! He may go into open market with the other products of his farm and sell to whomsoever will pay the most; but with his tobacco, he must go to the government dealer, make such terms as he can and pay a tax of 8 cents a pound for the privilege. Should the producer, manufacturer or any intermediate handler or dealer, through ignorance or mistake, violate any of the innumerable regulations with which the business is fettered, he is dragged from his home to a distant Federal court for trial. And that means fine or imprisonment, or both. More yet, this hateful system has bred a horde of spies, informers and rascals that hover around every citizen whose business pays tribute to the government through this channel—sane and except wealthy distillers who are able to buy them off. The iniquities of the whisky ring, fostered by this system, have become proverbial. Its power in national legislation is well recognized. The immunities of the lords of the great distilleries and the persecutions of the moonshiners for petty interference with the great whisky monopolies are well understood, yet our members of Congress, with loud pretensions for revenue reform, menace the young industries of the South by joining in an attack upon the tariff, and raise not a voice against the atrocities of our internal system of taxation. Looking back to the days of slavery, when patrols stalked through negro quarters on the plantation, the rigors of that system hardly compare with the excesses of the horde of marshals, spies and hirelings that dog the footsteps of American citizens.

The removal of internal taxes will range no industry and unsettle no interest. Tobacco and beer enter largely into the daily use of the laboring masses, and experience has proved that the lighter stimulants do a wholesome temperance work by superseding the use of stronger liquors. To abolish the tax on distilled liquors would go a great way towards getting whisky out of politics. The liquor traffic would be remanded to the control of the States,—where it belongs, and ought to belong. The collection of the great sums from these sources requires an army of more than 2,000 officials. This makes the system a power in politics. Distilled liquors pay an internal tax of 90 cents per gallon. In order to enable the business to bear this burden, a tariff duty of more than double that amount is placed upon imported articles of the same kind. The heavy excise so burdens the business that only the wealthy who are able to equip large distilleries and command extensive credit can successfully engage in it. Of these circumstances was born the whisky ring. This politico-commercial association largely dictates the policies of Congress in legislation touching the national revenues. It subsidizes hirelings of the Internal Revenue Department to run down 'moonshiners' and bring to grief all who interfere with its monopoly. As a people, we of the South pretend to be strong believers in the rights of the States, and to abhor the intermeddling of Federal authority in our domestic concerns; yet we hug the chains riveted upon us by this system, and raise our manacled hands before gods and men to strike down a tariff which has afforded protection and encouragement to thousands of interests, and is now enabling the New South to take its steadiest and best steps forward. We tolerate midnight arrests and domiciliary visits by Federal officials under these odious laws, and refuse relief; but when we spell State with a big S, and Nation with a little n, we feel

that a giant's blow has been given for the doctrine of States' Rights.

We have renewed the war-cry against a long established policy which has built up so great a portion of our country and so many of our fellow citizens. Shall we perpetuate the internal revenues, or shall we cast off the burdens that weigh us down, and become participants in a system that has prospered all who have given it a trial?

Experience has constantly shown that to cut down duties which are protective, increases revenues by causing larger importations than ever. Since the reduction on wool in 1883, revenues from that source have nearly doubled. So of many other articles. Texas people have no doubt observed that the lowering of passenger fares [or passenger tariffs] on the railroads of the State, have so increased travel as to increase also the revenues derived from that branch of their business. The same rule is said to hold good as to freight tariffs. Low rates invite greater shipments and increase the volume of business to an extent that increases revenues. If these propositions be not true, then our State government, in common with many others, has unjustly and injuriously intermeddled with the business of the railroads. If they are true, then by what kind of arithmetic will the revenues of the general government be decreased by tariff reduction? There are two ways of cutting of such receipts. Prohibitory duties and the free list. Tariff reduction in 1883 was speedily followed by increased revenues.

THE SOUTH PLEADS FOR OLEOMARGARINE.

There was one occasion, a memorable one, when Congressmen from the South opposed the imposition of an internal tax. This was in the summer of 1886, when the oleomargarine or bogus butter bill was pending. The manufacture of imitation butter had grown to the proportion of a national industry. The annual product amounted to some 200 million pounds—nearly four pounds per capita for every man, woman and child in the United States. The great pork and beef dealers of Chicago were the principal manufacturers of the vile compound. The fats and greasy refuse of the packeries which formerly went to the soap boiler, were now converted into oleomargarine. The seductive names of "Extra Creamery," "Extra Dairy," and the like, branded upon the tubs, prepared the public to receive and consume it as butter. Farmers in the Northern, Western and Middle States were largely interested in the dairy business. Hundreds and thousands of them got their livings by making and selling the genuine article, and their investments aggregated hundreds of millions of dollars. The fraudulent product of the slaughter-houses and packeries was ruining the dairy industry. Investments in that great interest shrunk in value continually. Complaints were made to State legislatures and to Congress. The latter body alone was able to grapple with the iniquity. A law was passed requiring manufacturers of it to pay a tax of \$600 per year; to brand their packages with the true name of the article. A further annual tax of \$480 was placed upon wholesale and \$48 upon retail dealers. Before the passage of this law most of the stuff was shipped to the South. With us the dairy interest has never been large. So long as the traffic was unhampered, and oleomargarine could be imposed upon consumers as real butter, it was in competition with the product of every farmer and dairyman in the country. It was sold to the retail dealer at a lower rate than honest butter could be made for, and then worked off on consumers at the price of the real article. When Congress made war upon this shameless and unconscionable fraud, our members lifted up their voices and cried aloud for the right of their people to buy and use untaxed

soap-grease as butter. The levy of the tax was not consistent with their ideas of "free trade;" it tended to protect dairymen and farmers at the expense of the sham butter monopolists. One of our Texas members made an oleomargarine speech and sent great numbers of them to his constituency, showing how gallantly he had championed their right to anoint their bread with Northern axle-grease, under the charming impression that it was choice Northwestern butter.

With all this, the passage of the law has had a good effect. Oleomargarine has been driven from the market in the smaller towns, and farmers unite in their testimony that prices of dairy products have improved. But they have to endure the reflection, if they ever reflect, that this benefit was forced upon them by their political opponents.

PROTECTION TALK.

In surrendering pre-eminence upon the seas, the enterprise of the nation became by no means quiescent. Great industrial triumphs have been won, and vast internal enterprises undertaken. Railway lines struck boldly across the continent, conquering alike the obstacles of deserts and mountain ranges. Oceans of sand and mountain snows yielded in turn and made way for the highways of inland commerce. Ex-soldiers of either army, infused with the spirit of adventure, met as friends and as Americans in the great West. Prairie and woodland were subdued with a rapidity never known before. The tide of empire beat against the basis of the Rocky mountains, then over and beyond. Mine and mill, forest and field flourished together. The railroad builder multiplied ways of commerce beyond the dreams of the shipmaster in the proudest days of his power. A system of free trade with each other, in thirty-eight States and ten Territories, comprising an area equal to all Europe, called for their best energies. The considerate American will find in the free and unfettered commerce between the States and territories of the Union—nations as it were—a field worthy of his enterprise for years to come. When sectional prejudice has given place to national pride, we will cease to yearn for the cheaper wares of the foreigner at the cost of ruin to our fellow-citizens. If they have prospered under the protective system, there is nothing to prevent us from sharing the same prosperity. Wherever it has been tested in the South, our people are satisfied with it, and desire its continuance. Until we become older as a nation—until labor, capital and machinery can be owned and operated in our country as cheaply as abroad—our industries will need protection against foreign competition. This advantage inures more to Southern than to Northern industrial enterprises. Theirs may have grown strong, but those of the South are indeed infants. Our hostility may continue to keep a large and threatening free-trade minority in Congress. Whether able to accomplish their designs or not, investments in the South will be retarded by every fresh attack upon the present system. It behoves us, if we would cause new enterprises to locate in our territory, to become friendly to the interests of the manufacturer.

FREE TRADE IN ENGLAND.

It is continually dinned into our ears that England has greatly prospered under a system of free trade. The British Isles are a long way off, and few are able to inquire into the truth of the declaration. In view of the characteristic carelessness of free traders in handling facts, there is at least room for doubt. Thousands of English people come to this country every year and find employment in American shops and factories. They become citizens and rarely return to their native land. The argument, or assertion, that a suit of

clothing costing ten dollars here can be bought for five dollars in England has no force with them. For there they have not the five dollars; here they have the ten. There, where clothing is cheap, they were poorly clad; here, where it is said to be dear, they dress well. They know, too, that in this country working people are better fed, clad and sheltered than elsewhere, because better paid. Moreover, as compared with this country, conditions differ greatly. England maintained a rigid system of protection for more than 500 years. She encouraged her manufacturers until they were able to stand against the world. The English are now a nation of shopkeepers, and the voice of their farming population is strangled by an overwhelming majority of tradesmen. They need a market for what they sell more than for what they buy. Their farming population, now in a hopeless minority, besieges Parliament year after year for a return of the old-time tariffs. When a nation is well developed, as England has been for a long time, and sells so vastly more than it buys, it naturally seeks markets in which to sell. Such nations may well become heralds of free-trade doctrines, when they are to be the gainers. With a manufacturing capacity that would enable her to supply half the world under an universal system of free trade, England would scarcely purchase a dollar's worth where she made sales amounting to five dollars. She can well become the apostle of a new faith. Her example is set for her own benefit. Until she became a seller, more than a buyer, stringent regulations were laid upon commerce. Manufacturers were protected for generation after generation. British ships took prizes the world over. British soldiers plundered hundreds of nations. The spoils of empires were emptied into her lap, fattening the capitalists of her capital city. The industry of hundreds of years has been invested in her enterprises. And now, hoary with centuries of experience,—after preaching a gospel of blood, iron and protection for ages,—after driving us from her household by long years of oppression, she invites us, before we have finished the conquest of our own wildernesses, to adopt her beneficent policy of free trade. She having survived the perils of unnumbered wars, may be able to carry out the scheme as to herself. Our interests dictate a different course.

COMING HOME.

It behoves us to continue to diversify our industries, and cling to the system that encourages a profitable interdependence of our citizens, one upon another. We of the South have only to look back to the dark days of our civil war to appreciate the necessity of a people being able to live at home. We had depended upon foreign nations for supplies; the North upon herself. The one section had stood by a tariff for the encouragement and protection of her industries; the other had not. When the planter's slaves increased and when his granaries were filled, his next neighbor was not prospered; but when the factory was built in the Northern town, values increased in all the neighborhood, employment was given to idle hands and money was put into empty pockets. The staying qualities of their prosperity were better than ours. It really seems odd that any Southerner who passed through the deprivations of the war period should need persuasion of the advantages of protection. It is strange that he has not discerned that the free-trade idea in the South is the surviving partner of the institution of slavery. In our business affairs home truths, like home manufactures, have ever met an unwelcome reception. For two generations the protective tariff has been the hitching-post of our prejudices; and on this subject

[CONTINUED ON PAGE 1134]

Double Dustless Separator for Cleaning Rice, Seeds and Grain.

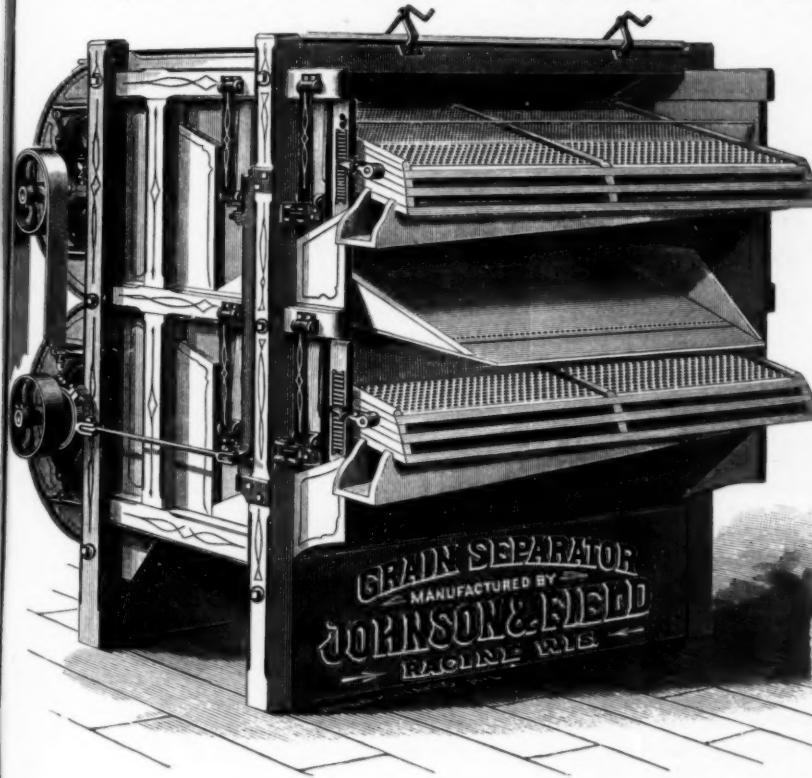
Prior to the World's Industrial Exposition at New Orleans in 1884-85, rice millers, warehouse merchants and planters were at a loss to find a separator or cleaner to economically and thoroughly clean rice. Most of the machines used for that purpose were intended for grain or seeds, and it was necessary to change the screens and run the rice through more than once in order to thoroughly clean it. Prominent among the exhibits that caught the eye of the progressive miller was the Racine Dustless Separator, which was afterwards awarded the gold medal. One of the leading rice

They All Want Protection.

[Smith Clayton in Atlanta Constitution.]

I took a turn in Alabama a few days ago, and saw and heard a few things which may entertain, and possibly instruct some of our able citizens.

I certainly do not intend to grow eloquent at the outset, but I simply wish to remark that in the early history of this country an Indian chieftain, followed by his tribe, turned his face to the setting sun. Day after day the solemn and picturesque procession moved on, the soft tread of moccasin feet barely wrinkling the leaves of the somber forest. (How is that for a sentence) At length, one day, after arduous marching o'er hill and down



millers of New Orleans concluded to try the machine in his mill. The result was a surprise to all and a grand success. Others saw the machine work and many sales were the consequence. It was then suggested to the manufacturers, Messrs. Johnson & Field, that a larger and stronger mill of greater capacity would be an improvement, and the result has been this new dustless separator, which has a capacity of 300 to 600 bushels per hour. The height is six feet four inches; length, including sieves, five feet five inches; width, six feet ten inches; including pulleys, eight feet five inches.

Each machine is furnished with double combination of zinc sieves and screens for cleaning grains and seeds, if so ordered. The double combination of zinc sieves and screens, through which the rice passes and to which blast is applied by two fans, has the effect of blowing over all false grains, light seeds and impurities. There are also two zinc screens, one of which is designed for use when "black seed" is found in rice, and the other for "wiggle tails." Both of those troublesome impurities can be effectually removed by running it through this separator once. In addition to these there is attached to the cleaner a suction fan. The suction is applied to the grain as it strikes the combination of sieves, drawing out all dust, straws, "wiggle tails," rubbish and light seeds, carrying them outside the building or into a dust room, as required. This machine is strongly built to stand hard usage and runs very light. For further information and prices address Johnson & Field, Racine, Wis.

THE Bethlehem (Pa.) Iron Works have received an order to furnish steel armor plates for new cruisers for the Italian navy.

lead, the silent sachem suddenly paused upon a beautiful bluff. At his feet rolled the bright waters of a noble stream. Overhead hung a bright blue sky. A royal smile lit up the face of the aged chieftain as his big black eyes gazed on the glorious landscape, skirting the river, and, in a voice melting with emotion, he said: "Alabama! Alabama!" which interpreted, signifies in the mellifluous tongue of the red man, "Here we rest." So the river took its name from the tired chief, and the State took its name from the river. Here, then, the chief and his tribe rested—and I may add gradually rusted. They pitched their wigwams; they planted a little Indian corn; they caught the sun perch and the sucker; and sometimes, by way of variety, they swapped coon skins with the Georgia pa'face for fire-water. While they reposed upon their deer skins through the silent night, millions of tons of iron lay in a deep sleep in the shaggy sides of Red mountain, and millions upon millions of tons of coal slumbered undisturbed within the soft embrace of the surrounding hills—the condensed sunlight, perhaps, of a thousand years!

The night winds which sobbed around the summit of Red mountain and then swept northward through the Alabama hills, seemed to speak for the mighty twins which slept on beneath their rugged tops. They simply said: "Here we rest," so the iron rested. The coal rested. The Indians rested, and still they rusted. After some time, they rusted entirely out, leaving nothing behind except the beautiful legend to mark the spot where once they "rested." This was some years ago. These Indians were the advance guard

of the free trade party in Alabama. They protected nothing, because they had nothing to protect. They did not even protect themselves. Progress, wealth, happiness, civilization—what were they to the simple mind of the red man? No more than the idle wind that kissed the crest of old Red mountain, which he respected not. Time changed. The pale face came—and with him came protection. The scalping knife of the savage gave way before the echoing axe of the pioneer. The wigwam vanished as in a troubled dream and the farm house came to stay. The birch bark canoe shot athwart the beauteous bosom of the Alabama for the last time as the steamboat puffed around the graceful bend, and in the blazed path of the wilderness the hoof of the iron horse marked out forever the print of the moccasined foot as he snorted up the valleys.

The pale face came, and with him came protection! The brow of old Red mountain was wreathed with curling smoke, and the sad song of the whippoorwill was lost amid the glad music of machinery. And still the pale faces came. From the mighty West, from the frozen North from the effete East, from the land beyond the sea. With golden touch the hand of capital tapped the sleeping hills and forth walked coal and iron in their thousand useful forms. White cottages decked the smiling valleys and peeped from the frowning hills, and the soft white hand of woman trained the vine about the door and smoothed the grimy brow of honest toil. Men unlocked the hills and in the sweat of their brows made bread. It is Alabama, "Here we rest no more." It is Alabama, "Here we work." And they have builded well. Birmingham, Anniston, Bessemer, Sheffield, Decatur, Gadsden, stand forth as bright and strong as Minerva, full panoplied from the brain of mighty Jove, who stood guard while men did this great work.

Protection—that stalwart sentinel who even now stands with raised shield and drawn sword to keep off the enemy free trade! And this same sentinel tells even the Democratic party too its teeth, "Take any shape but that." If you don't believe

I don't know what Congress will do, but if it shall reduce the duty on iron, and the Democratic party shall go before the country with Cleveland's message as a platform, Alabama will surely file into the Republican column.

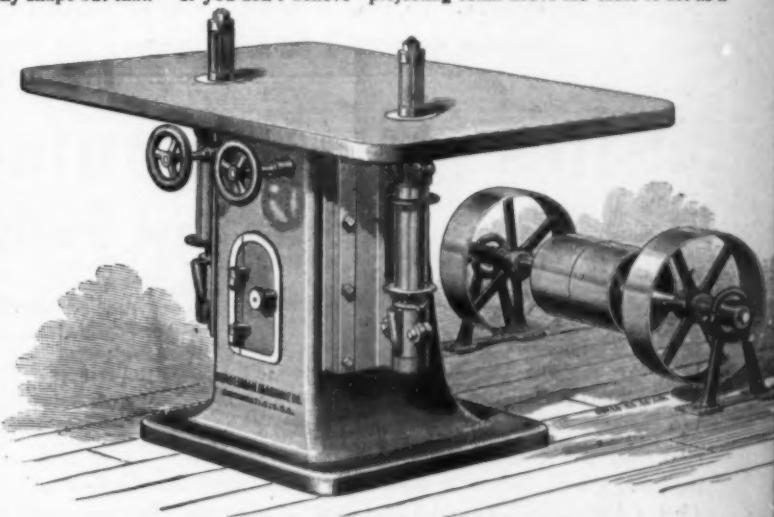
Vertical Double-Spindle Shaping Machine.

This cut is an accurate representation of the medium-sized moulding and shaping machine made by the Cordesman Machine Co., and is intended to work straight and irregular forms for furniture, agricultural implement, carriages, wagon and car manufacturers. This machine is of modern design and made by first-class workmen. It has the strength and capacity for every variety of general work.

The column is heavy and the metal well distributed. It is cored out and cast in one large piece. The base is very wide, thus giving the machine a substantial floor support, and is cored so as to form a rib on the outside in a manner that stiffens it and lessens the liability of breakage. The column is fitted with a door, making the space on inside a convenient receptacle for tools, etc.

The spindles, which are long, stiff, accurately turned and truly ground, are made of $1\frac{1}{4}$ -inch steel, measuring 1 inch in diameter above the table, and placed 24 inches apart from center to center. They revolve in cored out frames having connected self-oiling babbed boxes, with improved composition metal take-up steps for end play. The frame work, by being planed true and gibbed to planed ways on column, is arranged to keep these spindles in perfect line and from heating. They can be adjusted vertically by means of screws on inside of column, which are operated by the hand wheels in front of the machine.

The iron table, which measures 40x46 inches, is cast in one piece and is amply large for any kind of work. It is well braced, planed perfectly true, and fitted with concentric rings to suit various sizes and kinds of heads and cutters. When desired, concentric rings may be made with a projecting collar above the table to act as a



VERTICAL DOUBLE SPINDLE SHAPING MACHINE.

this, only just go over to Alabama and talk to the sentinel.

Free trade people are as scarce in Western Alabama as hairs on a Mexican dog. I have never seen a people more solid for anything than they are for protection. The children cry for it, the maidens sigh for it, the merchants buy for it, young men are spry for it, capitalists pry for it, even the farmers are sly for it, the editors sometimes lie for it, and I believe that everybody will vote until they die for it. I have heard President Cleveland damned all over North Alabama, and believe that if he should read his message to the people of Birmingham, it would lead to a riot.

guide. A heavy wooden table, made of narrow glued-up strips of hard wood, will be furnished instead of iron, if preferred.

We furnish with each machine one set of $2\frac{1}{4}$ -inch compression slotted steel collars, with straight cutters and fill-up collars to suit, concentric rings, with wrenches and counter-shaft. Extra heads of larger and smaller diameter furnished to order. The tight and loose pulleys on counter-shaft are $10x5\frac{1}{4}$ inch face, and should make 750 revolutions per minute. For further information address the Cordesman Machine Co., Cincinnati, O.

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Price \$3.00 a year, or six months for \$1.50.

SHIELD

COLBERT COUNTY, ALA.

The Iron Manufacturing Center of the South.

BEING at the *head of navigation*, and on the *south* bank of the Tennessee river, Sheffield is the *natural outlet* for the mineral and manufacturing products of Alabama and neighboring States seeking a water route to points on the Ohio and Mississippi rivers, and to the Gulf of Mexico, as well as the best *distributing point* over Alabama, Eastern Mississippi and East Tennessee, South Carolina, Georgia and Florida for Northern and Western produce, groceries, provisions, machinery, &c. *Four railroads* certain, and several others assured. *Principal shops of Memphis & Charleston Railroad* will be erected here pursuant to written contract. These will employ between *four hundred and five hundred mechanics*, and consequently, with their families, will make an increase in population of at least two thousand people. *Shops of three other railroads* are contracted to be located here.

Five Blast Furnaces Now Under Construction,

Of which one is nearly finished, and the remaining four contracted to completion next spring, have estimated capacity of 700 tons pig iron per day. This is 40 per cent. more than now manufactured at Birmingham, Alabama. Experts do not hesitate to say that *iron can be manufactured more cheaply* at Sheffield than at Birmingham, and its *river transportation facilities* will enable Sheffield iron to reach the principal markets at a saving of from

\$2.00 TO \$2.50 PER TON.

A first-class semi-weekly newspaper, printed by steam, is regularly issued. Furniture Factory, Bottling Works, Bakery, 3 Steam Brick Works, 2 Hand Brick Works, 2 Steam Wood-Working Establishments, Water Works, 2 Banks, a Savings Bank, and Steam Job Printing Office already in successful operation, and Iron Pipe Works, 15-ton Ice Machine and five story hotel, with all modern appliances, will be erected. The Cleveland Hotel, Park House and numerous boarding houses furnish accommodations to travelers. Postoffice, Telegraph Office and Express Office already established. Contracts have been made for the early erection of Electric Light Works, Paint Works, Agricultural Implement and Machine Works and Cotton Compress. Large Stove Works, Machine Shops, additional Iron Blast Furnaces, an extensive Charcoal and Chemical Plant, a large Rolling Mill and other manufacturing establishments under consideration, and will probably be built shortly.

Good Water. Free Public Schools and Churches. Health and Climate Unsurpassed.

Drainage excellent. Splendid opening for men of *push and energy*. No "Old Fogey" element here.
No better point for *profitable investment*.

Sites for Manufacturing Enterprises, And for Free Public Schools and Churches

Donated by Sheffield Land, Iron & Coal Company.

Population January 1st, 1887, 700; now, (August 21st, 1887,) by actual count, 2,583. Increase of population, 300 per cent. in eight months, and only limited by accommodations.

Three years ago the site of Sheffield was cultivated as corn and cotton plantations, and was without a railroad. Numerous two and three-story brick business houses, and one and two-story dwellings have been, and are being erected. The class of buildings will compare favorably with those in cities of 20,000 inhabitants.

LIMESTONE of excellent quality for *fluxing iron* in unlimited quantities at the furnaces' sites. First-class building stone and brick clay abundant. Rich and extensive deposits of *brown hematite iron ore* within twenty miles, along the lines of two Sheffield railroads. The Sheffield & Birmingham Railroad runs through the heart of the *Warrior Coal Fields*, which abound in first-class *coking, steam, gas and grate coal*. *Timber* is abundant and cheap.

The *Memphis & Charleston Railroad* and the *Sheffield & Birmingham Railroad* are now in operation into Sheffield. The *Louisville & Nashville Railroad Co.* is now extending its *Nashville, Florence and Sheffield* division, which will be completed to Sheffield before the close of the year 1887. Surveys of three other railroads have been recently completed to Sheffield, which will soon be the *best combined river and railroad transportation center* in the South.

Every merchant and every established manufacturing enterprise is doing a profitable business. *More are needed.* For further information address

ALFRED H. MOSES, Vice-Prest. and Manager

Sheffield Land, Iron & Coal Co., - Sheffield, Ala.

Tuscaloosa, Ala.

* ALABAMA'S NATURAL PITTSBURGH. *

A Railroad and River Town of 6,000 Inhabitants, in the Coal, Iron and Timber District.

Healthful Location. Salubrious Climate. School Facilities Unequaled by any other town in the South.

Centre of Education for the State. Seat of University of Alabama. Of State Insane Asylum. Of Alabama Central Female College.

Hill's Female School. Fine Free School. Churches of all Denominations.

+ SITUATED ON +

Queen & Crescent

— TRUNK LINE, —

IN THE

Warrior Coal Field

AND ON THE

WARRIOR RIVER.

Only Navigable River touching the

Alabama Mineral Field.

Eight Months Navigation. Being Surveyed now to be opened all the year round.

All Water Navigation to

• MOBILE •

AND THE

Entire Gulf and Atlantic Coasts.

THE

— Tuscaloosa Northern Railroad —

Is now under construction into the

MINERAL and TIMBER FIELDS.

— THE —

Macon & Tuscaloosa Railroad

Will soon be building into the

COTTON REGION OF MISSISSIPPI.

Fine Farming Region

Around and Below the City.

Manufacturers Seeking Locations in the South have here

• THE GOLDEN OPPORTUNITY. •

Many have availed themselves of it, but such is the wonderful richness of the resources of this section that there is

• ROOM FOR ALL. •

THE **Tuscaloosa Coal, Iron & Land Co.,**

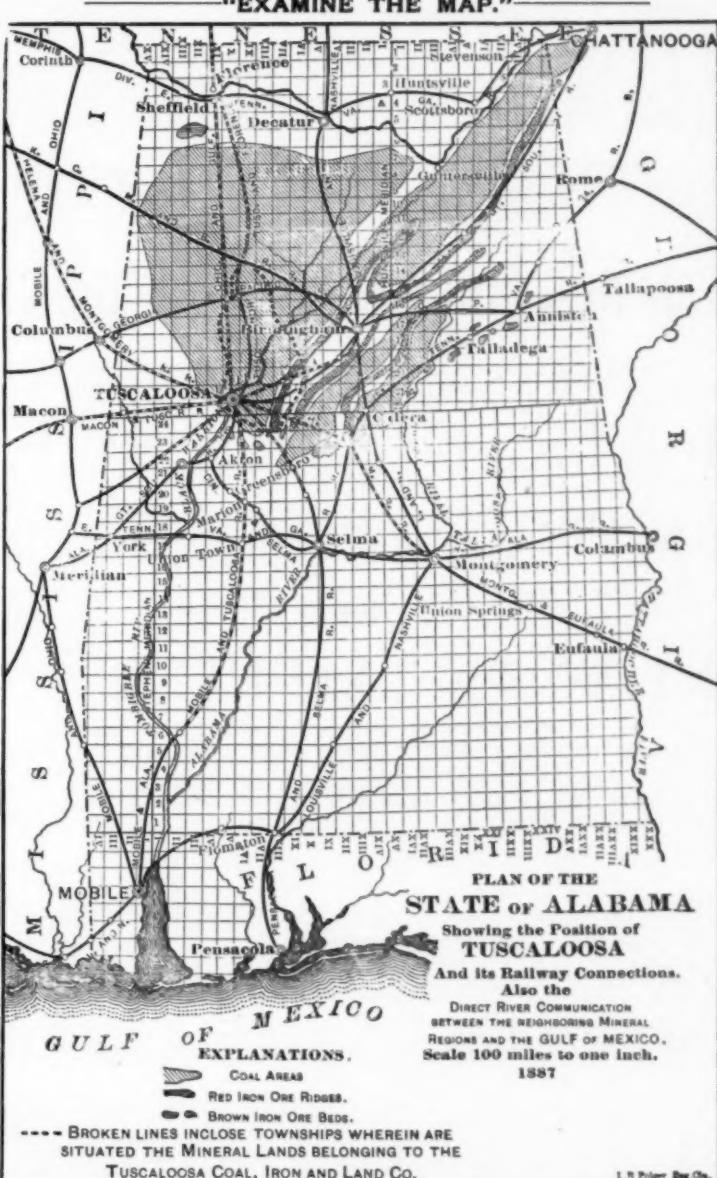
Owning 4,600 acres of city and suburban property, and 40,000 acres of mineral and timber lands, offers liberal inducements to manufacturers to locate at Tuscaloosa, Nature's City, and invites correspondence and the fullest investigation of its claims.

An illustrated descriptive pamphlet sent free upon application to

W. C. JEMISON,

President Tuscaloosa Coal, Iron & Land Co.,

TUSCALOOSA, ALA.



Superior Inducements

AND

+ ADVANTAGES +

TO ALL

Manufactories Consuming

WOOD,

IRON,

COTTON.

FINE COOKING COAL

In workable veins near city, fully tested.

• The Fire Clay •

Existing in inexhaustible quantities, has been practically tested and pronounced

The Best yet Discovered in the South.

Street Car and Dummy Lines
NOW BUILDING.

• Water Works and Electric Lights •

TO BE PUT IN AT ONCE.

COTTON MILL

In Successful Operation.

ALSO

LARGE BRICK WORKS

COTTON-SEED OIL MILL, &c.

Florence, Ala.

County Seat of Lauderdale County.

At Head of Navigation on Tennessee River, and at Foot of Muscle Shoals Canal,
which will be open Jan. 1st, 1888.

SITUATED on a gently undulating Plateau, 200 feet above high-water mark, surrounded by three large creeks of pure free-stone water. It has a Court House, Two Colleges, Four Public Schools, Six Churches, beautiful wide streets, graded and graveled, and shaded with forest trees; Hotels, fine store houses, Masonic, Odd Fellows, K. of H. and L. of H. lodges. A population of 2,500—moral, social and hospitable.

— The Scenery on Every Side is Picturesque and Beautiful. —

SO MUCH SO THAT IT IS CALLED BY VISITORS

FAIR FLORENCE.”

There is no Place on the Continent more Healthful and Salubrious.

MANUFACTURES.

Within the last six months numerous manufactures have been located here, among the number:

Five Large Blast Furnaces.	One Saw Mill,	One Cotton Mill,	Two Brick Machines and
One Rolling Mill,	One Flour Mill,	One Cotton Compress and Ice	Three Hand-Brick Yards.
Three Planing Mills,	One Wooden-Ware Factory.	Factory.	

There are VAST BEDS OF IRON ORE within a few miles North and
IMMENSE COAL FIELDS SOUTH

ACCESSIBLE BY RAILROADS NOW BEING RAPIDLY CONSTRUCTED.

By the 1st of January the Nashville & Florence Railroad will be completed, making three lines of railroad, and the river, thus opening up VAST AREAS OF TIMBER, IRON ORE, COAL, Marble, Limestone, Kaolin, Fire-Clay, and almost every kind of mineral and product.

THE LANDS IN THE SURROUNDING COUNTRY ARE FERTILE AND PRODUCTIVE.

All kinds of Grain, Grasses and Fruits grow to perfection. Springs and Water Courses are numerous, and grazing for Cattle is abundant for eight months of the year.

Pamphlets and maps furnished on application to

Florence Land, Mining & Manufacturing Company.

GADSDEN, ALA.

Is situated on the West Bank of the COOSA RIVER, in the midst of the
RICHEST IRON AND TIMBER SECTION
 IN THE FAVORED STATE OF ALABAMA.

→ The Gadsden Land and Improvement Company ←

Own large tract of Eligibly Located Residence Property in the Most Desirable Part of the City, and have fine location on river and railroad for

MANUFACTURING ESTABLISHMENTS,

And are offering great inducements to manufacturers to locate their plants in this *FAVORED LOCALITY*. No place in the South has such **Wonderful Advantages**. Situated in the midst of the *RICHEST IRON SECTION in the STATE*, at the foot of Lookout Mountain on the banks of a Navigable River, (*THE BEAUTIFUL COOSA*), surrounded by Forests of the Finest Timber on the Continent, with Fine Building and Fire Clay, and the *FINEST BUILDING STONE* all around us, with

Uninterrupted Health, and the Purest and Best Water and Finest Drainage of any City in the State,

Gadsden should become the Greatest Manufacturing Center of Alabama.

THE Alabama Great Southern, Rome & Decatur, Tennessee & Coosa, Anniston & Cincinnati Railroads, with the ever-flowing Coosa navigable the year round, gives us as *FINE TRANSPORTATION FACILITIES* as any other city enjoys.

We now have Railroad Car Works, Furnaces, Foundry and Machine Works, Saw Mills, Sash, Door and Blind Factory, Furniture Factory, Ice Factory, Paint Mills, Crist and Flouring Mills, Cotton Ginnery, Fine System of Water Works, Electric Lights, Telephone Communication over City, and also to neighboring cities Atlanta and Rome, Ga.

WE WANT Rolling Mills, Bridge and Bolt Works, Cotton Factories, Woolen Mills, Furniture Factories, in fact all kinds of Factories, even Coffin Factories, (but we want to ship the Coffins to some of the other booming cities.)

Liberal Grants of Land will be made by THE GADSDEN LAND AND IMPROVEMENT CO. to any of the above-named industries.

FOR FURTHER PARTICULARS ADDRESS

M. L. FOSTER, Sec. & Treas.

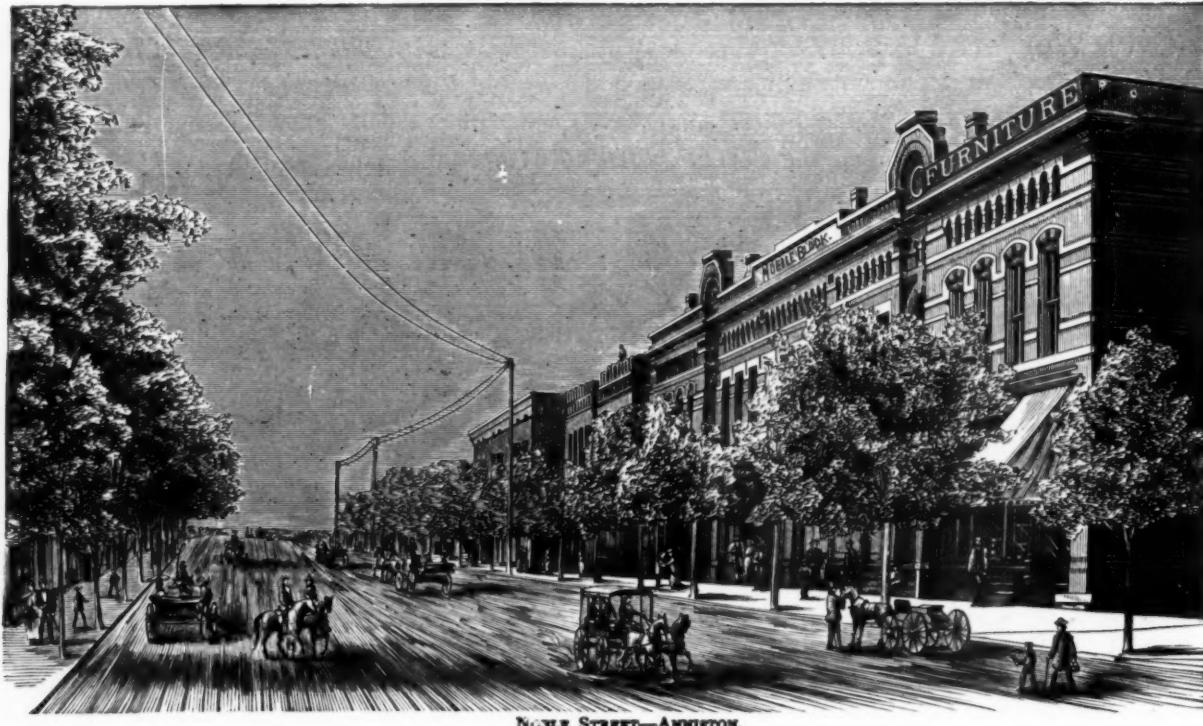
THE GADSDEN LAND & IMPROVEMENT CO. - - - GADSDEN, ALA.

POST-OFFICE BOX 145.

ANNISTON, ALA.

"The Model City of the South."

HERE is no healthier or more charming place of residence in America than Anniston; built on the slope of one of the highest of the chain of the Blue Ridge in Alabama, it commands scenery that is unapproachable in the State. Nature could not have formed a more beautiful place for man to build a city or given greater natural advantages. The natural drainage is most thorough and complete, while in addition the city is preparing a system of underground sewerage. *A more delightful and invigorating climate cannot be found anywhere: mild in winter, cool in summer, a thousand feet above the Gulf, with the high and broken chain, range after range in the east, Blue Mountain in the north, Coldwater Mountain in the southwest, make Anniston the coolest, healthiest and most attractive of any city in the South.* It has the richest agricultural country surrounding and tributary to it in the State, to support a manufacturing and mercantile population. The mountain sides will grow the grape and every kind of large and small fruit to perfection, and the valleys every product of diversified farming. *It is in the heart of the richest mineral district of the South, and commands the great fields of brown hematite ores on which the great and successful manufacture of iron must in the end depend for quality and profit in every branch of most skillful and best manufactures of iron and steel.* It has tributary to it the best and most extensive pine forests in North Alabama, that are reached by roads owned and controlled by Anniston citizens, while it has secured to its industries the very best coal mines and coking coal in Alabama. There is no city in America, in proportion to population, that has the manufactures of Anniston, or employs as many working men, or does a larger mercantile business. The industries already in full and profitable operation in Anniston are the two **Woodstock Furnaces** producing six hundred tons of Standard Car Wheel and Malleable Iron per week, and the two **Clifton Furnaces**, tributary to Anniston, producing nearly as much more. **The Car Works** are fully employed turning out forty cars per week, and are introducing new machinery and larger engines to increase their capacity to twenty cars per day. **The Rolling Mill and Car Wheel Foundry and Steam Forge** are among the largest in the South, of a capacity of two hundred wheels, a consumption of 120,000 pounds of metal per day, exclusive of the Rolling Mill and Steam Forge. These works are being enlarged to meet the increasing demands upon them. The **Cotton Factory** is one of the largest in the South, containing 11,700 spindles, and is running to its full capacity, while the foundry of **Murray & Stevenson, and machine shop of Pindar & Co., and planing mills of Miller & Smith and Farrar & Co.** employ a large number of men and are crowded with work. The new industries that are now under way and provided for will within the next twelve months **Add Four Thousand Additional Working Men to Anniston's Population**. Two of the Largest Iron Furnaces in the South, capable of producing two thousand tons of iron per week, are progressing rapidly, and one of the Largest and most complete Pipe Foundries in the world for the production of Gas and Water Pipe is under construction,—it will employ nine hundred men.



NOBLE STREET—ANNISTON.

The Steel Bloomery, for the production of Steel Blooms, is nearly completed, and the new **Fire-Brick Works of Taylor & Sons** are in operation. The **Ninety-Inch Morse Cotton Compress**, with its warehouses, has been completed, and is receiving cotton. Forty thousand bales, it is estimated, will be secured to Anniston from the territory that its system of railroads have opened up. The completion of the **Anniston & Cincinnati Railroad** during the present year, that will be owned and controlled by Anniston's citizens, opens up new territory and forms a **New and Shorter Grand Trunk Line to Cincinnati and the great Northwest, and to the Southwest via New Orleans and Shreveport.**

It is only the profits of business and labor that can add to the wealth of a community, add to or maintain the value of real estate, and add to the prosperity of its people. Having this in view, every industry and business in Anniston is established on a *profitable basis*. All its merchants are doing a large and profitable business, far larger than they prepared for or anticipated; it is the same with the manufacturers, while *not a dollar of debt has been created*, either by issue of a bond or placing of a mortgage on any of its old or new industries, leaving their earnings free from fixed charges that must be paid in times of depression as well as of prosperity. *To the investor, either in business, manufacturing or real estate, nowhere else are presented opportunities as safe, secure and certain as at Anniston, or where they can rest on as healthy and solid foundation.* It has trunk line railroad communication with all parts of the United States, and freight rates with the most favored of Southern cities. Two lines of railroads are owned and controlled in the interest of Anniston by its own citizens. *It has the best system of Water Works*, with the purest well water from three hundred feet below the surface, drawn from white quartz sand and gravel, and distributed through the city, with a pressure of 100 pounds to the inch, from a reservoir always full, protecting the city against fire and giving it the lowest rate of insurance. *The city is practically free from debt, and taxation limited to one-half of one per cent.* The means for education are the very best. Public Schools of a high grade are provided. One of the finest and best institutes for Young Ladies has been opened, and a College for Boys and Young Men, to which a School of Technology and Chemical Assay Laboratory have been added, is now nearly completed, and the best of teachers and professors secured for both. There are *Churches for all denominations*, and *Hotel Accommodations that are not surpassed in Europe or America*. The **ANNISTON INN** provides the quiet and comfort of the most luxurious home. *The streets are wide, macadamized, and rolled hard and smooth for pleasant drives.* **STREET CARS AND DUMMY LINES** are being built to different parts of the city, and the **ELECTRIC LIGHT** service enlarged and improved, leaving nothing undone to promote the comfort of its citizens and maintain and increase the value of their property and profits of their business.

The Anniston City Land Company, or the Bureau of Information, will give any information desired when applied to, and invite all wishing a charming place in which to live, to do business or to make profitable investments, to visit

ANNISTON.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

Akron.—There is talk of the Cincinnati, Selma & Mobile Railroad (office, Montgomery) being extended from Akron to a point on the Kansas City, Memphis & Birmingham Railroad, about 150 miles.

Anniston.—The United States Rolling Stock Co., (office, 35 Wall street, New York), previously reported as to build large car and locomotive works, including a rolling mill, in connection with the Alabama Car Works and Noble Bros. Car Wheel Works, have taken charge of the car works and car wheel works and will soon locate the new foundry which will have a capacity of 40 tons per day, and the rolling mill whose capacity will be 50 tons daily. E. Otten, representing the company, states that over \$100,000 of new machinery has already been purchased and that new buildings will be erected as fast as possible.

Anniston.—Chisolm & Green have prepared plans for the remodeling of the Opera House.

Anniston.—Garner & Son will erect a stone building on Noble street, to cost, it is said, \$20,000.

Anniston.—It is reported that Mr. Reynolds has been prospecting with a view to starting a cotton tie factory.

Anniston.—A stone building, 36x45 feet, is to be added to the Boys' School. It will be used as a laboratory and a gymnasium.

Anniston.—Mr. Linsky will erect a two-story store building on Tenth street.

Anniston.—Joseph Eros, of Orangeburg, S. C., will erect a two-story brick building on Noble street, near Thirteenth.

Atalla.—It is rumored that several manufacturers are to be started soon. When anything is done, F. J. O'Connell can give particulars.

Bessemer.—James H. Hard, Charles F. Hard, G. M. Wells, A. J. Robinson, H. F. Matthews and F. J. Dinegan have incorporated the Bessemer Ice Manufacturing Co., capital stock \$10,000, to erect an ice factory, electric light plant, &c. Ice machinery is wanted. Address James H. Hard.

Bessemer.—A screw factory is to be started within 30 days. 27 machines will be put in at first, and the capacity will probably be doubled soon after starting. James H. Hard can give information.

Bessemer.—Parties have selected a site for a wagon, carriage and wood-working factory. James H. Hard can give information.

Birmingham.—The Universal Horse-Shoe Machine Co., capital stock \$175,000, has been chartered to manufacture horse-shoe machines and horse shoes by J. Douglas Billings, of New York; Thomas B. Everett, of Boston, Mass., and John M. Martin, of Birmingham.

Birmingham.—W. W. Wilson will erect a \$5,000 brick building on Second avenue.

Birmingham.—B. M. Hughes has let the contract for two three-story brick buildings on Twentieth street.

Birmingham.—The Gate City Land Co. are building a system of water works at Gate City.

Birmingham.—The Pioneer Pottery Works will purchase land and build large works to manufacture plain and decorated white iron-stone china. Their capital stock is \$70,000.

Childersburg.—The capital stock of the land and improvement company lately mentioned as being formed, is \$150,000. The directors are John Oden, R. C. Carter, George Butler and others.

Citronelle.—D. Devol, of Illinois, is building a box and wood-working factory.

Cluttsville.—A mill near Cluttsville has been purchased by parties who will add machinery.

Cullman.—The Cullman Land & Immigration Co. will build a hotel.

Decatur.—The Decatur Building & Supply Co. will erect a planing mill. Machinery will soon be purchased.

Decatur.—It is stated that the United States Rolling Stock Co. (office, 35 Wall street, New York) are making preparations for the removal of the car works plant now at Urbana, O., to Decatur, previously reported.

Decatur.—The Decatur & South Mountain Dummy Railroad Co., previously reported, have increased their capital stock to \$200,000, and will issue bonds to build a summer resort on South mountain, develop mines and quarries, &c.

Decatur.—Parties have been prospecting for a site for a factory to manufacture plumbers' supplies. If anything is done, the Decatur Land, Improvement & Furnace Co. can give particulars.

Fort Deposit.—There is talk of a wagon, plow and bucket factory being started. If anything is done, Joseph Norwood can give information.

Goodwater.—Stone quarries near Goodwater are being opened.

Guntersville.—The Wyeth City Land & Improvement Co., lately reported as organized, will build a hotel to cost not less than \$10,000.

Hartselle.—A \$100,000 building and investment company has been formed by M. K. Mahan, E. J. Oden, J. A. Rountree, C. H. Cooper and others.

Hull.—The Tuscaloosa Lumber Co., of Tuscaloosa, have ordered machinery to erect another saw mill. Will also build a planing mill and drying kiln.

Huntsville.—J. & J. C. Harrold, of Columbiana, O., will build a steam saw mill in Madison county.

Huntsville.—A fruit canning factory is reported to be started by J. P. Lippincott & Bro.

Jasper.—A stone quarry is reported to be developed.

Leeds.—A stock company is being formed to build the street railroad reported last week. Handley & Murrell can give information.

Leeds.—The Leeds Planing Mill Co. will increase their capital stock and add some new machinery to their mill.

Mobile.—A new fire-alarm system will be put in and bids will be advertised for. The mayor can give information.

Mobile.—Walruff & Son, of Lawrence, Kans., will negotiate for the removal of their brewery to Mobile.

Mobile.—M. Bishop, of California, has recently purchased 30,000 acres of timber lands in Baldwin county, and will erect a large saw mill and probably a hotel.

Mobile.—The Mobile Artificial Stone Co., capital stock \$10,000, has been formed with

John A. Welch as manager. Will start works at once.

Montgomery.—J. N. Rushton can give information in regard to the company reported last week as to be organized by the farmers to build a large cotton warehouse.

Mount Vernon.—J. Henry Turner, of the United States Coast survey, will make a topographical and hydrographical survey of the Mobile river to obtain information as to the water approach to Mount Vernon where a government ship yard is reported to be located.

Mountain Mills.—W. H. Cherry & Co. contemplate in the summer adding to their Mountain Mills (cotton) 2,500 spindles, with cards and other machinery.

New Hope.—A stock company has been formed to build a telegraph line to Whitesburg. A. Whited can give information.

Opelika.—The company to build the cotton factory previously reported will probably soon be formed.

Opelika.—A union depot is to be built.

Renfroe.—D. W. Rogers & Co. are adding a steam drying kiln to their brick works at Sterny.

Selma.—The Matthew Cotton Mills Co. will probably add 30 looms to their mill.

Selma.—The First Baptist Church will be enlarged and improved at a cost of about \$4,000.

Sheffield.—The Sheffield & Birmingham Coal, Iron & Railway Co., at their meeting last week, adopted resolutions authorizing and directing the building of branch railroads to aid in the development of the company's mineral lands, and providing for the immediate construction of coke ovens.

Sylacauga.—A large brick warehouse is reported to be built by parties from Opelika.

Sylacauga.—The Talladega Springs property, 10 miles from Sylacauga, has been purchased by Samuel Noble, of Anniston. He will make extensive improvements, erect new buildings, &c.

Talladega.—J. H. Lawson has moved his saw mill to near Shocco Springs.

Trussville.—The Birmingham Furnace & Manufacturing Co., previously reported, expect to blow in their 100 ton furnace about July 1. They will begin work on the second furnace as soon as the first is tested satisfactorily.

Tuscaloosa.—The Jeter & Boardman Water & Gas Association, of Macon, Ga., previously reported as to build water works, have ordered brick to build stand pipe, and will commence active operations February 1.

Tuscaloosa.—It is reported that the contract to build the tunnel on the Tuscaloosa Northern Railroad has been let to Dunsivant, DeBardeleben & Tate, of Birmingham. D. T. McMillan is president.

Tuscaloosa.—It is probable that a company will soon be organized to start the fire-brick works previously reported. The Edgefield Land & Improvement Co. can give particulars.

ARKANSAS.

Beebe.—The final survey of the Kansas City, Arkansas & New Orleans Railroad, previously reported, from Beebe to Monroe, La., will soon be made. George M. Barbour is president.

Bentonville.—The capital stock of the company previously reported as being formed to start a canning and evaporating factory is \$20,000.

Boonsboro.—A canning factory is to be started.

Conway.—The Witt Drug Co., capital stock \$4,000, has been chartered by H. C. Witt, W. H. Weiler and J. Horne.

Fayetteville.—E. B. Harrison and others have formed the Fayetteville Electric Light & Power Co., capital stock \$30,000.

Fayetteville.—A canning factory is projected.

Fort Smith.—It is reported that a \$6,000 stock company has been formed to start the creamery lately reported. If true W. F. Tiller can give information.

Fort Smith.—Daniel Gehe will, it is reported, put roller machinery in his flour mill at a cost of \$25,000.

Helena.—The name of the \$25,000 stock company previously reported as formed to erect an electric light plant is the Helena Electric Light & Power Co. James Summers is president; Leon Berton, vice-president; Jacob Trieber, secretary, and J. C. Barlow, treasurer. Will use the Van Depoele system.

Hope.—The Southwest Arkansas Fair Association, capital stock \$15,000, has been organized with B. B. Foster as president.

Hot Springs.—A saw mill is to be built near Hot Springs.

Hot Springs.—New elevators are to be put in the Waverly and Plateau hotels.

Little Rock.—The Citizens' Street Railway Co. have let the contract for a 3-mile extension of their road.

Little Rock.—The City Electric Street Railway Co. have let the contract to build 4 miles of their road, lately reported, to R. F. Wilson.

Little Rock.—The Little Rock Gin Co. will enlarge their factory.

Little Rock.—Brice & O'Kelly, reported last week as to build an iron foundry, will invest about \$10,000 or \$12,000.

Little Rock.—A party is prospecting with a view to starting a paper mill. If anything is done the secretary Chamber of Commerce can probably give information.

Newport.—William B. Empie & Co. have nearly completed their new lumber mill. The capacity will be 30 M or 35 M feet daily.

Pine Bluff.—The Standard Compress & Warehouse Co., capital stock \$300,000, has been organized with J. B. Speers as president; J. T. W. Tiller, vice-president; E. C. Howell, secretary, and H. H. Hunn, treasurer. Will select a site at once for a large compress and storage buildings with a capacity of 25,000 bales of cotton. They contemplate the erection ultimately of one or more compresses at other points in Arkansas.

Prairie Grove.—The name of the \$25,000 stock company reported last week as to start a canning and evaporating factory is the Prairie Grove Canning & Evaporating Co. D. T. McMillan is president.

Rogers.—Water works are being agitated. Graham & Mason can give information if anything is done.

FLORIDA.

Clay Springs.—The Florida Wine Co. will not double their capacity, as lately stated.

De Funik Springs.—It is reported that C. H. Dixon will add sash and door machinery to his planing mill.

De Funik Springs.—I. T. Sabbs and Alexander Kellogg will, it is reported, build a furniture factory.

Fernandina.—The Florida Railroad & Navigation Co. will rebuild their machine shop reported last week as burned. It is said that machinery has been ordered.

Gainesville.—C. L. Anderson and R. M. Caffall, of New York, have been prospecting in the interest of a syndicate who contemplate building a canal from the St. John's river to the Suwanee river.

Jacksonville.—The Jacksonville & Gulf Railway Co. has been chartered by A. S.

MANUFACTURERS' RECORD.

Rowley, Samuel Barton and Bryan Taliaferro.

Madison.—The contract to build the jail, previously reported, has been let to the Champion Iron Fence Co., of Kenton, Ohio, at \$6,750. They have let the contract for all but the iron work to W. T. Davis, of Madison.

Mount Tabor.—Camp Bros., of Campville, will establish lime works.

Pensaco'a.—The Pensacola Stone & Building Co., lately reported as organized to manufacture artificial stone, have rented a building and ordered machinery for their works.

St. Augustine.—The contract to build the temporary courthouse lately reported will be let to Master & Schultze. The cost will be about \$6,000.

Titusville.—Work has been commenced on the ice factory reported last week. F. M. Morton can give particulars. It is probably being erected by the American Refrigerating & Construction Co., of Harrisburg, Pa.

Vernon.—T. J. Miller will at once rebuild his grist mill and gin, previously reported as burned.

Waldo.—The American Refrigerating & Construction Co., of Harrisburg, Pa., are now building their ice factory and cold storage warehouse previously reported.

GEORGIA.

Athens.—A company is being formed to build a large hotel. Cooper Pope can probably give information.

Athens.—J. H. Dorsey will extend his street railroad and purchase 2 dummies.

Athens.—It is reported that a \$50,000 land and improvement company is being formed.

Atlanta.—The city council contemplate erecting a public building to cost not less than \$40,000.

Atlanta.—The main building of the Southern Agricultural Works, reported in this issue as burned, will be rebuilt at once.

Atlanta.—The Board of Education have decided to erect a \$15,000 school building in the fourth ward. Work will be commenced early in spring.

Atlanta.—The Exposition Cotton Mills contemplate doubling their capacity in the summer. They now have 480 looms and 16,000 spindles.

Atlanta.—The city council have appropriated \$55,000 for sewer work and \$75,000 for paving and curbing for the present year.

Augusta.—The Young Men's Christian Association are securing money to build a fine new hall. A site will shortly be purchased.

Augusta.—The Enterprise Manufacturing Co. contemplate adding 7,500 spindles and 300 looms to their cotton mills.

Augusta.—The Dartmouth Spinning Co. are increasing the capacity of their cotton mill from 10,000 spindles to 11,000 spindles.

Augusta.—The board of trustees of the poor house contemplate erecting a building.

Barnesville.—Summers & Murphy have, it is stated, lately increased the capacity of their carriage factory.

Boston.—S. G. Culpepper, reported last week as to move his lumber mill to Boston, will add \$10,000 of new machinery and build a narrow gauge logging railroad ten miles long.

Brick Mills.—A saw mill will be built by Robinett & Beavers.

Brunswick.—A site has been selected for the \$35,000 hotel previously reported to be built on St. Simon's Island by the Brunswick Co. The street railroad will be completed by the company. W. E. Kay can give information.

Brunswick.—A cotton compress is to be erected by William Hitt, of Americus, and

A. F. Churchill and Bascom Myrick, of Savannah.

Carrollton.—Water works are being agitated, and the mayor has appointed a committee to make investigations.

Cartersville.—J. D. Jones and others have formed the Bartow Pulverizing Co. to build works for pulverizing ores, etc., and for manufacturing mineral paints. They have secured a site and ordered machinery.

Cedartown.—It is reported that C. Philip will move his saw mill to Thomas county.

Cedartown.—It is reported that a furniture factory will be built.

Cedartown.—W. G. Gibson and others have purchased the Watts & Connor iron ore property. The price is reported as \$87,500.

Cedartown.—The Ore Belt Railroad now being constructed, may be extended to Cave Spring.

Chuncey.—The Normandale Lumber Co., reported last week as to change their road from narrow to standard gauge, will lay new 50-pound rails and put on new cars and locomotives.

Columbus.—Albert Steiner is reported as organizing a company to erect a mineral paint factory.

Columbus.—Proposals for erecting a 10-room brick school building will be received until February 6th by A. P. Moity.

Cuthbert.—The Randolph Manufacturing Co. propose to add from 800 to 1,000 spindles to their cotton mill.

Dahlonega.—A 10-stamp mill has been erected by the Hand & Barlow Mining Co.

Dahlonega.—The Adams Mining Co. have ordered machinery for a 30 stamp mill to be erected on Long Branch in Lumpkin county.

Dalton.—It is reported that the Southern Steel Works will be moved from Chattanooga, Tenn., to Dalton.

Dalton.—The Crown Cotton Mills contemplate increasing their capacity during next summer about 50 per cent. They now have 4,000 spindles and 100 looms.

Darien.—A large hotel is reported to be built, also a hall by the Masons.

Decatur.—It is reported that a wagon factory will be started.

Gainesville.—H. B. Smith, J. M. Bell, J. P. Canning, R. E. Mitchell, K. L. Boone and others have incorporated the Gainesville Compress Co. The capital stock is \$10,000.

Gainesville.—The contract for the brick work of the Presbyterian church has been let to McMahan & Rowbotham.

Griffin.—The Odd Fellows have purchased a site to erect a large three-story brick building.

Jewell's.—Bowen, Jewell & Co. contemplate adding a few hundred spindles to their Jewell Mills (cotton).

La Grange.—W. S. Cox has purchased the plow factory of S. P. Smith.

Lawrenceville.—There is talk of building a new jail.

Macon.—The Macon City & Suburban Railway, Light & Power Co., previously reported, have received permit to build their dummy railroad, and will shortly commence work.

Macon.—John Lyon will enlarge his wagon factory.

Marietta.—The Marietta & North Georgia Railroad Co. will at once commence changing their road from narrow to standard gauge, previously reported.

Milledgeville.—Efforts are being made to form a \$15,000 stock company to build an ice factory.

Mineral Bluff.—J. D. Holbrook will erect a saw, planing and shingle mill.

Nacoochee.—The St. George Gold Min-

ing Co., of London, Eng., are erecting their 20-stamp mill previously reported.

Quitman.—The parties who will start the canning factory reported last week are negotiating for machinery.

Rockmart.—A party is negotiating to purchase the slate quarry of Seaborn Jones and will, if purchased, extensively develop it.

Rome.—The Rome Gas Co., previously reported as to add an electric light plant, will erect buildings as soon as the weather permits.

Rome.—A system of water works will probably be built at East Rome.

Rome.—A furniture factory is to be built by John C. Printup and others. A stock company will be organized.

Roswell.—The Roswell Manufacturing Co. will add 1,000 spindles and 40 looms to their cotton mills.

Savannah.—It is rumored that Mr. Kennaugh and others will erect an ice factory and are purchasing machinery.

Savannah.—The Savannah Ice Delivery Co., reported last week, will not manufacture ice.

Savannah.—The Gorrie Ice Manufacturing Co. are adding machinery to their factory to increase their capacity from 12 to 27 tons daily.

Savannah.—A large saw mill is being erected along the line of Savannah, Florida & Western Railroad by Albertson, Paxton & Co.

Vienna.—J. L. Whitehurst, W. A. & J. T. Jackson, J. T. & John Collier and Smith, Hunter & Cox are reported as having lately erected lumber mills.

KENTUCKY.

Ashland.—R. P. Thomas, of Ironton, Ohio, will probably establish fire-brick works.

Brookville.—George B. Poage is trying to organize the company to bore for natural gas, lately reported.

Carrollton.—A company is being formed to purchase and remodel an old flour mill. A. E. Gullion can probably give information.

Carrollton.—The Carrollton & Prestonville Bridge Co. is being formed to build a bridge across the Kentucky river at a cost of about \$60,000. Information, etc., from bridge builders is wanted. Address J. E. Geier.

Corbin.—F. V. McKeehan has purchased a saw mill and will move it to Corbin.

Elkton.—There are prospects of a tobacco stemmery and a planing mill being started. H. G. Petree can probably give information when anything is done.

Elkton.—An \$8,000 hotel is reported to be built. If true H. G. Petree can probably give information.

Ezel.—Robert Bartley has opened a coal mine.

Frankfort.—Bills have been introduced in the legislature to incorporate the Marion, Smithland & Paducah Railroad Co.; the Paducah, Cairo & Southwestern Railroad Co.; the Paducah, Hickman & Southern Railroad Co.; the Peninsular Iron Co. (Paducah); the Paducah Real Estate, Contract, Mining & Mineral Co.; the Louisville & Jeffersontown Bridge Co.; the Cincinnati, Jellico & Cumberland Railroad Co., with Benjamin Crawford, Ray McDonald, Robert H. Campbell and others as corporators; the Kentucky, Cumberland & Tennessee Rivers Improvement Co., capital stock \$5,000,000, with Atilla Cox, Thomas H. Hays and Young E. Allison, of Louisville, and others as corporators; the Paducah & Southern Railroad Co., and the Central Valley Railroad Co.

Greenup.—The Gladiator Stove Co., capital stock \$3,000, has been incorporated to manufacture stoves, hollow ware, &c., by James C. Harvey, George Harvey and Alice Harvey.

Lexington.—E. Bitterman is enlarging his galvanized iron cornice works.

Lexington.—Robinson & Scott have purchased machinery to manufacture the Hopkins check register.

Louisville.—The Louisville Machine & Elevator Works have purchased a site to build new works. Will commence building as soon as the weather will permit.

Louisville.—Dennis Long has added some new machinery to his iron foundry.

Newport.—H. A. Schiver, previously reported as purchasing the Swift Iron & Steel Works, has, with A. P. Gohr, J. H. Mathews, Adam Wagner and R. W. Nelson, chartered the Newport Iron & Steel Co., capital stock \$500,000, to operate the works.

Walton.—A 50-barrel roller flour mill has been erected by Rouse Bros.

LOUISIANA.

Baton Rouge.—The State Board of Engineers are advertising for proposals to build the Cafield levee, in Ascension Parish, and the Myrtle Grove levee, in Plaquemine Parish.

Lake Charles.—A machine shop is being erected by O. B. Graves, of Orange, Texas, and Mr. Waters, of Lake Charles.

Mt. Lebanon.—W. M. Reese will start a steam laundry early in the spring. He will arrange for lighting the Mt. Lebanon College buildings with gas. Will probably use the Clingman gas machine.

New Orleans.—The city council will probably advertise for bids for building an iron bridge across Bayou St. John.

New Orleans.—The Daughters of Charity of St. Vincent de Paul contemplate erecting buildings for an insane asylum.

New Orleans.—F. W. Freret & Co. are raising money to build a cotton mill.

New Orleans.—Moore, Hyams & Co. are working up a company to build a \$300,000 cotton mill.

Washington.—Plans, specifications and bids for an iron drawbridge across Bayou Courtalieu will be received until February 10 by Leon Wolff.

MARYLAND.

Baltimore.—The Baxter Electric Manufacturing & Motor Co. contemplate building 23 dwellings on Collington avenue.

Baltimore.—The Baltimore Society of Friends have purchased a site, 130x144 feet, corner of Park avenue and Laurens street, to build a church to cost about \$30,000. Plans are being prepared.

Baltimore.—The Northern Central Railway Co. are preparing to build the new iron bridge across their tracks at Charles street, previously reported.

Baltimore.—The Northern Central Railway Co. will build a freight depot on North street, near Centre.

Baltimore.—The Northern Central Railway Co. are building the bridge across the Jones Falls, near North street, previously reported.

Baltimore.—The Water Board have purchased a site north of the city for the high-service reservoir, previously reported. It will cost about \$300,000, and the pumping plant about \$60,000.

Baltimore.—Charles H. Markland has contracted to erect for E. Greenbaum, corner Lexington and Park streets, a brick, stone and iron building, 52x75 feet and 80 feet high, to cost about \$50,000. Steam heat will be put in.

Baltimore.—The Edison Illuminating Co. has been incorporated by Thomas J. Shryock, William A. Dunn, Francis P. Stevens, Robert Turner, William H. Crawford and others. The capital stock is \$300,000.

Baltimore.—The Eastern Avenue M. E. Church have broken ground for their new church, corner Baltimore and Washington streets, previously reported.

Baltimore.—A bill has been introduced in the legislature at Annapolis to authorize the Yorktown Turnpike Co. to run their cars by electricity.

Baltimore.—The Anchor Prepared Paint Oil Co., capital stock \$7,500, has been chartered by Aloysius P. Carey, John Albaugh, John H. Thies, John W. Corner, John Henry, John S. Knapp and William Thies.

Baltimore.—Shannon Bros. will build 47 two-story houses on Myrtle avenue, near Hoffman street, and in the immediate neighborhood.

Baltimore.—The Coale Muffler Safety Valve Co. has been chartered by Joseph M. Coale, Harman L. Linthicum, William J. O'Brien, Frank W. Coale and Joseph G. Coale. The object of the company is to manufacture machinery pertaining to the use of steam boilers.

Catonsville.—The Catonsville Water Co. contemplate increasing their capital stock.

Cumberland.—The Cumberland Natural Gas & Oil Co. will probably transfer their rights, franchises, &c., to parties who will continue the boring for oil and gas.

Darlington.—It is reported that a canning factory will be erected by Charles A. Andrew.

Denton.—A bill will be introduced in the legislature at Annapolis to incorporate the Elkton, Denton & Cape Charles Railroad Co., with G. W. Gildsborough and others as corporators.

Elkton.—Baker Bros., of Aberdeen, contemplate erecting a canning factory.

Ellicott City.—Messrs. Cone, Hubner and Gary will organize a company to erect an ice factory.

Ellicott City.—Solomon Hose, reported last week as to establish cooperage works, has purchased a site of 5 acres. The main building will be 24x130 feet.

Frederick.—A bill will be introduced in the legislature at Annapolis to authorize the city to fund its debt from 5 to 4 per cent., and issue \$50,000 of bonds to increase the water supply of the city.

Glenwood.—Albert Hobbs has purchased a saw and flour mill near Glenwood.

Havre de Grace.—A canning factory is to be started at Hough Hollow, in Harford county.

Michaelsville.—A large canning factory will be built near Michaelsville by C. R. Wilson, of Perryman's, and James Bellingham.

Port Deposit.—The capital stock of the company reported last week as being organized to build an iron foundry will be \$50,000. R. C. Hopkins can probably give information.

Texas.—William L. Cockey and C. O. Cockey have purchased limestone and marble lands.

Webster.—A canning factory is reported as being erected by Dr. Earl.

Wye Mills.—John T. F. Brown will remodel his flour mill to the roller system. The capacity will be 50 barrels daily.

Takoma, D. C.—Angus Lamond will rebuild his sewer pipe works, lately reported as damaged by a boiler explosion.

Washington, D. C.—A bill has been introduced in Congress to authorize the Independent Automatic Portable Gas Works to build works. They contemplate erecting a large plant.

Washington, D. C.—An ice factory is reported to be built in South Washington. R. Goldschmid can give information.

Washington, D. C.—A bill has been introduced in the Senate to incorporate the Washington & Sandy Spring Narrow Gauge Railroad & Street Railway Co., with Henry M. Baker, A. G. M. Prevost and others as corporators.

MISSISSIPPI.

Bogue Chitto.—The Keystone Lumber & Improvement Co. will put 2 extra machines in their planing mill, build 2 dry kilns, and expect to begin within 60 days work on a new saw mill with a daily capacity of 40 M. feet. Have not purchased machinery.

Want a locomotive, 3-foot gauge. Porter make preferred.

Columbus.—The Tombigbee Mills, previously reported as building a cotton mill with a capacity of 4,500 spindles and 120 looms, will double their capacity soon after putting their mill in active operation.

Crystal Springs.—The Crystal Springs Canning Co., previously reported, have organized with W. C. Wilkinson as president; V. L. Terrell, vice-president, and C. M. Huber, treasurer and general manager. The authorized capital stock is \$50,000. The company will build a factory at once.

Greenville.—The Greenville Water Works Co., reported last week as purchasing a site for their plant, will also erect an electric light plant.

Jackson.—Bills have been introduced in the legislature to incorporate the Yazoo City & Greenville Railroad Co. and the Jackson Light, Heat & Power Co.

McComb.—J. J. White will at once rebuild his dry kilns reported last week as burned.

Meridian.—J. S. Solomon will build a market house.

Natchez.—Proposals for building a breakwater in St. Catherine's creek will be received until February 6 by Oliver N. Wilds.

Water Valley.—The Yocona Mills (cotton) are thinking of putting in 100 additional looms during the year.

NORTH CAROLINA.

Asheville.—The C. E. Graham Manufacturing Co. contemplate adding to their cotton factory just completed 3 frames, 528 spindles and 32 or 40 looms.

Aurora.—T. F. Cherry contemplates adding to his mill the manufacture of shuttle blocks, spoke heads, &c., and wants to purchase machinery.

Bladesboro.—C. C. Mercer, of Charlotte, will rebuild his saw mill lately reported as burned.

Burlington.—W. L. & E. C. Holt are thinking of adding 1,250 spindles to their Elmira Cotton Mills next summer.

Charlotte.—Philadelphia (Pa.) parties are corresponding in regard to starting a cotton factory.

Charlotte.—A railroad is projected from Charlotte to Sanford.

Charlotte.—A company has been formed to manufacture well buckets, cedar ware, &c. Will soon commence work.

Charlotte.—The name of the company previously reported as being formed to build the second cotton mill, by W. P. Bynum, J. H. McAden and others, will be the Victor Cotton Mills. The capital stock will be \$150,000.

Charlotte.—The Charlotte Manufacturing Co., lately reported as organized to build the first cotton factory, have purchased a site of 10 acres, and will begin work as soon as weather permits.

Charlotte.—T. L. Alexander and others, reported last week as proposing to form a company to build the third cotton mill, have incorporated the Adina Manufacturing Co., with a capital stock of \$100,000. Will begin work as soon as the weather will permit.

Charlotte.—H. M. Wilder and D. G. Maxwell will start a shoe and stove polish factory. Their capital will be \$5,000.

Concord.—The Cannon Manufacturing Co. will put their new cotton mill in operation March 1. They will increase its capacity during this year.

Dallas.—There is talk of building a cotton factory.

Durham.—Proposals for clearing, grubbing, grading, masonry, bridging, trestling, cross-ties and track laying on the Oxford & Clarksville Railroad, from Oxford to Durham, will be received until February 10 by R. H. Temple, P. O. Box 224, Richmond, Va.

Durham.—The Durham Cotton Manufacturing Co. have ordered 24 additional looms for their mill.

Durham.—W. Dukes Sons & Co. have increased their paid-in capital stock from \$250,000 to \$600,000, and will enlarge their smoking tobacco factory. They contemplate, it is said, building a fire proof ware house with a capacity for 1,200 hogsheads.

Fayetteville.—Frank Thornton will erect several store buildings.

Forest City.—The stock company reported last week as being formed to build a cotton mill, will erect a mill to cost not less than \$50,000. Will probably have it in operation by September. G. E. Young can give information.

Gastonia.—The Gastonia Cotton Manufacturing Co. are purchasing machinery for their mill, previously reported. Their mill will be built for 6,000 spindles, 3,000 of which will be put in this summer.

Goldsboro.—A meeting of citizens will be held to consider the building of a cotton mill. If anything is done J. B. Whitaker, Jr., can give information.

Havelock.—A saw mill will be built by Geret Vyne. Machinery has been purchased.

Highlands.—Henry Stewart is building a saw, planing and lath mill and a sash, blind and furniture factory.

Hope Mills.—The Hope Mills Manufacturing Co. contemplate adding 100 looms to their cotton factory.

Indian Trail.—T. L. Stowell is opening a mine.

Iron Station.—R. S. Reinhardt will rebuild his gin, reported last week as burned and wants to purchase machinery.

Kinston.—Aretas Jones and R. W. McGowan will erect a turpentine distillery.

Louisburg.—B. P. Clifton contemplates starting a small cotton-seed oil mill, and wants to purchase machinery. He prefers second-hand machinery if in good order and cheap.

Monroe.—It is stated that about \$55,000 have been subscribed towards organizing the company to build the cotton factory reported last week. Walter J. Boylin can give information.

Morehead City.—The contract to build an assembly hall has been let to J. A. Wilson & Co., of Wilson's Mills.

Taylorsville.—R. Z. Linney has opened a stone quarry near Taylorsville.

Monbo.—The Monbo Manufacturing Co. contemplate adding to their Long Island Cotton Mills at least 500 spindles and probably 6 looms.

Morganton.—A cigar factory will be started by W. A. Wortman & Co.

Mount Airy.—A cigarette and smoking tobacco factory is being built by W. E. Patterson.

Mount Airy.—J. F. L. Armfield expects to enlarge the capacity of his cigar factory soon.

Mount Holly.—T. F. Castner, J. A. Castner, A. P. Rhyne, W. R. Dewstone and B. F. Pierce have organized a company to erect a large factory to manufacture knit goods, cotton and wool. It is said that 400 hands will be employed.

Mount Holly.—Messrs. Clark and Cook will start a steam saw mill about 3 miles from Mount Holly.

Mount Holly.—Mr. Shuman will build a 25-room hotel.

Mount Holly.—A sash, door and blind factory is being built by Dewster & Pierce.

Newton.—A stock company is being formed to build a hotel.

Newton.—The Newton Cotton Mills, reported last week as contemplating adding machinery, will put in 1,000 additional spindles this year.

Newton.—H. W. Weedon & Co. have re-organized as the Newton Spoke & Lum-

ber Co., and will during the year add machinery for finishing up spokes.

Raleigh.—The North Carolina Phosphate Co. have put in some new machinery.

Raleigh.—A cotton factory is being agitated.

Raleigh.—There is talk of starting a canning factory.

Rockingham.—The Roberdel Manufacturing Co., previously reported as to enlarge their cotton mill, are adding about 1,800 spindles.

Shelby.—Morgan, Cline & Co., previously reported as erecting the Shelby Cotton Mills, will start with a capacity of 2,000 spindles, and contemplate adding 1,000 afterwards.

Shelby.—J. M. Peanington, of McFarlan, has contracted to build a hotel at the Cleveland Springs.

Southern Pines.—A canning factory is to be started. B. A. Goodside can give information.

Wadesboro.—George P. Horton contemplates erecting a 1,500 spindle cotton mill if he can succeed in purchasing machinery on time.

Walnut Cove.—B. M. C. Hill will rebuild his dry kiln reported last week as burned.

Wilmington.—Frank S. Clark has been prospecting, it is said, with a view to erecting works to manufacture acetate of lime, wood alcohol, &c., from the pyrolytic acid produced at the works of the Carolina Oil & Creosote Co.

Wilmington.—The Wilmington & Sea Coast Railroad Co., previously reported, have organized with William Lattimer as president; W. H. Chadbourne vice president; Pembroke Jones, secretary; H. M. Bowden, treasurer, and J. H. Chadbourne, Jr., general manager. The contract to build the road, which will extend to the Wrightsville sound, has been let to W. H. Chadbourne and J. H. Chadbourne, Jr.

Wilmington.—The Clarendon Water Works Co. will sink an artesian well near their plant at Hilton.

Winston.—Mr. Hitchcock contemplates building a chair factory.

Winston.—John M. White, of Charlottesville, Va., and associates contemplate building a street railroad, but as yet have not decided definitely to do so.

Winston.—There is talk of starting a canning factory. S. E. Allen can probably give information if anything is done.

SOUTH CAROLINA.

Arlington.—The Arlington Manufacturing Co. expect to add to their cotton mill during this year 20 looms and 1,200 spindles.

Beaufort.—Parties have been prospecting for a site for a varnish factory.

Bluffton.—The South Carolina Land & Improvement Co., of Columbia, propose to build a town 4 miles from Bluffton, on the Colleton river.

Charleston.—Cohen Bros. will start a publishing and printing establishment.

Cheraw.—A stock company has purchased a site to build a brick hotel.

Cheraw.—The Cheraw Land & Improvement Co. has been incorporated. The capital stock is \$3,000, with privilege of being increased.

Columbia.—The city has decided, by a popular vote, to accept a grant of the State canal, and guarantee \$300,000 of bonds for its completion.

Columbia.—The First Presbyterian Church will repair and improve their church at a cost of about \$7,000.

Columbia.—Julius H. Walker is making efforts to organize a company to build a cotton mill. The capital stock will be \$100,000.

Columbia.—T. C. Robertson and Allen Jones, of Columbia, and J. R. London, of Rock Hill, are working up the Mutual Co-operative Cotton Mill Co., to build a

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cotton mill. The capital stock is to be \$200,000.

Greenville.—The Lanneau Manufacturing Co., previously reported as building a yarn mill of 1,300 spindles capacity, contemplate adding about 700 spindles.

Laurens.—R. H. Hudgins, J. J. Pluss and George B. Anderson will build an iron foundry and a machine shop. They have let contract for their buildings.

Mapleton.—(P. O. McCormick), Sears & Dallas, reported last week as to increase their capital stock, will as soon as possible add 400 spindles to their Mapleton Cotton Mills.

Piedmont.—The Piedmont Manufacturing Co. have decided to build an additional mill, with a capacity of 10,000 spindles. Will be for manufacturing sheeting.

South Carolina.—G. F. Buss, of the Buss Machine Works, Grand Rapids, Mich., will purchase timber and mineral lands in South Carolina.

Walterboro.—A saw mill has been erected by W. P. DuBoise.

White Hall.—A flour mill is being erected by Esekew & Watson.

York County.—A gold mine on the land of J. S. Bratton is being developed. Machinery will be purchased.

TENNESSEE.

Athens.—Proposals for building a hotel will be received until April 1 by Thomas C. Veall, architect, Chattanooga.

Athens.—The electric light plant referred to last week is to be erected as soon as practicable by the Athens Mining & Manufacturing Co.

Bluff City.—Patterson & Frye contemplate adding about 1,000 spindles to their cotton mill next summer.

Bristol.—W. S. Floyd is reported to build 10 houses.

Bristol.—John G. Wood has purchased a site to erect the hotel previously reported. It will cost about \$50,000.

Bristol.—Charles Gauthier, of Troy, N. Y., has been making investigations with a view to establishing brick works.

Buckeye.—The Pioneer Coal & Coke Co. are opening mines and will, it is said, build coke ovens.

Chattanooga.—Proposals for furnishing plans and for building the large Catholic church lately reported are invited by the rector, Mr. Walsh.

Chattanooga.—It is rumored that Allen & Atkinson will build a new scale factory.

Chattanooga.—The City Street Railroad Co. and the Chattanooga Electric Street Railroad Co. have been granted permit to build their roads, previously reported, by the Hamilton county court.

Chattanooga.—It is rumored that a large fuel gas plant will be erected near Chattanooga.

Chattanooga.—The East End Land Co. have sold lots to parties who will, it is stated, build 20 houses.

Chattanooga.—It is reported that the Citico Furnace Co. will reline their furnace.

Chattanooga.—Boyd Ewing, W. C. Basquette, W. H. Hart, L. S. Colyar and George L. Morris have incorporated the Dirtseller Iron Co., to mine coal, iron ores, &c., manufacture coke, iron, charcoal, alcohol, &c. They own mineral lands in Georgia.

Chattanooga.—Edward D. Kohn, of Bristol, Tenn., and Conrad Giese, of Council Bluffs, Iowa, have purchased a site to build a large brewery, including an ice plant, and are now purchasing machinery. They will be known as the Chattanooga Brewing Co.

Clarksville.—Pottery works are projected. When anything is done W. G. Poindexter can give particulars.

Clarksville.—A company is being formed to manufacture barrels, staves and headings. The capital stock will be about \$10,000. T. E. Lucas is interested.

Covington.—A hotel is projected and will probably be built. A. J. Douglas can give information.

Dayton.—White & Dixon can give information in regard to the electric light plant reported last week.

Dayton.—It is stated that a stove foundry will be built and that a site has been secured. J. H. Ferguson can give information.

Dayton.—It is rumored that W. C. Gardiner will build a hotel.

Dyersburg.—It is reported that Northwestern parties have purchased cypress timber lands and will develop.

Fayetteville.—There is talk of a cigar factory being started.

Hodges.—The Brauner Mills will be repaired and improved.

Huntingdon.—A cotton factory is reported to be moved to Huntingdon.

Johnson City.—The tannery reported last week as to be erected will be built by Northern parties who are now making arrangements. The daily capacity will be 550 hides. F. A. Stratton may give information.

Johnson City.—The Magnetic Iron Ore Co., capital stock \$300,000, has been organized with F. A. Stratton as president; C. L. Stratton, secretary, and J. E. Crandall, treasurer. The company contemplate erecting a 100-ton furnace.

Johnson City.—The Johnson City Belt Railroad Co. has been organized with an authorized capital stock of \$1,000,000 to build a belt railroad around Johnson City, and to Carter's Depot, if advisable. F. A. Stratton is president; C. L. Stratton, secretary, and J. E. Crandall, treasurer.

Knoxville.—It is stated that a representative of a syndicate of Northern capitalists is making investigations with a view to purchasing largely of mineral lands.

Knoxville.—The contract to build 9 miles of the Powell's Valley Railroad and a tunnel about 3,500 feet long has been let to the Mason, Gooch & Hoge Co., of Frankfort, Ky. It is said that the tunnel will cost about \$250,000.

Knoxville.—The Knoxville Cold Storage Warehouse Co., reported last week, will put in machinery for cold storage.

Knoxville.—Proposals for building the Carolina, Knoxville & Western Railroad from Knoxville to Greenville, S. C., will be received until January 31 by the Georgia Construction & Investment Co., Knoxville.

Knoxville.—C. Kurth has contracted to furnish boilers and tanks for the enlargement of the plant of the Knoxville Ice Co., previously mentioned.

Knoxville.—The Clinch River Veneer Co. are adding some machinery to their works.

Knoxville.—The Knoxville Buggy Works will increase their capital to enlarge their works, previously reported.

Lebanon.—Davis & Carty, of Nashville, have received the contract to build part of the Nashville & Knoxville Railroad.

McMinnville.—Curl & Gribble have purchased machinery to erect a saw and planing mill. It will be consolidated with the barrel hoop factory now in operation.

Memphis.—A bank building is reported to be built corner Beale and Main streets.

Memphis.—The Young Men's Hebrew Association contemplate erecting a building to cost \$75,000.

Memphis.—It is reported that Crampton & Co., of Chicago, Ill., have contracted to build the Memphis, Oxford & Columbus Railroad from Memphis to Columbus, Miss.

Memphis.—It is reported that a company is being formed to build a theatre to cost \$300,000.

Memphis.—The Speer, Wadding Co., manufacturers of batting, mattresses and wadding, expect to double their capacity.

Milan.—It is stated that Mabley & Co., previously reported as contemplating building a flour mill, have decided to do so.

Morristown.—It is stated that a company has been formed to build the water works previously reported. W. A. Jones can probably give information.

Nashville.—It is reported that a company with a large capital is being formed to purchase and develop iron ore lands near Nashville.

Nashville.—The rumor referred to last week that the Louisville & Nashville Railroad Co. will move their shops to another site and enlarge them is not confirmed.

Nashville.—The Nashville Cotton Mills will probably add 100 or 150 looms soon. They now have 204 looms and 12,000 spindles.

Nashville.—Welb, Stevenson & Co., manufacturers tin ware, contemplate putting in motion power.

Nashville.—The Royal Chemical Co. has been chartered to manufacture drugs and chemicals by George F. Hager, W. R. Phillips, A. G. Turner, J. T. Carson and others. Mr. Hager is president and C. F. McKinney, secretary and treasurer.

Ripley.—Morris Bros. have moved their saw mill from 4 miles from Ripley to the Mississippi bottom.

South Pittsburg.—The Hauss Electric Light Co., of Cincinnati, O., have been corresponding with a view to erect a plant.

Trenton.—The Trenton Cotton Mills contemplate adding 15 looms and 420 spindles.

Wauhatchie.—It is rumored that parties from Chicago, Ill., have purchased and will develop coal lands.

TEXAS.

Athens.—The Dallas Brick & Tile Co., of Dallas, have purchased a site to build works. The cost will be probably \$25,000.

Clarendon.—The Fort Worth & Denver Railroad Co. (office, Fort Worth) are preparing to build their 10 stall roundhouse previously reported.

Clarendon.—Daniel Carris has commenced grading on the 20-mile branch of the Fort Worth & Denver Railroad, previously reported.

Clarksville.—A company will be formed to build a street railroad.

Clarksville.—A brick school is to be built. The mayor can give particulars.

Corsicana.—The Germans are raising money to build a church and a school.

Cuero.—The Texas Ramie Association has lately been organized with C. F. Staedler as president.

Dallas.—One of the flour mills is reported to be enlarged at a cost of \$30,000.

Dallas.—A Northern party offers to furnish \$30,000 towards forming a \$60,000 stock company to build a paper mill.

Denison.—The Missouri Pacific Railroad Co. will at once rebuild the roundhouse reported last week as burned.

Denison.—The Denison & Sherman Railroad Co., lately reported as chartered, are making preliminary surveys.

El Paso.—The Texas Pacific Railroad Co. (office, Dallas) have asked for permit to build a bridge across the Rio Grande river.

Fort Worth.—The St. Louis, Arkansas & Texas Railroad Co. (office, St. Louis, Mo.) have let the contract for graveling their yards in North Fort Worth to J. P. Hughes.

Galveston.—The property of the Island City Ice Co. has been sold to H. Rosenberg for \$16,800.

Galveston.—The Texas Ice & Cold Storage Co., lately reported as organized to erect a 30-ton ice factory and cold storage warehouse, have purchased a site. Machinery has been purchased.

Galveston.—The contract for furnishing the 3,000,000 gallons engines for the water works, previously reported, have been let to Knowles Steam Pump Co., of New York; for the boilers to Gordon & Maxwell, of Hamilton, O.; for pipes and castings to R. D. Wood & Co., of Philadelphia, Pa.; for stand pipes and tanks to McFall, Hodgkins & Clarke, of Watertown, N. Y., at \$28,874; for buildings and chimney to L. B. Stevens, Toledo, O., at \$21,500, and for valves to the Eddy Valve Co., of Waterford, N. Y. The commissioners rejected all bids for artesian wells and will advertise for new bids. \$50,000 have been reserved for the wells.

Houston.—A hotel is reported to be built near the Houston & Texas Central Railroad depot.

Houston.—The Fort Wayne (Ind.) Jenny Electric Light Co., reported last week as contracting to light the city, are now erecting a plant for that purpose with a capacity for 2,000 incandescent lights, of the new alternating system, and probably 100 or 150 lights for commercial use.

Houston.—T. W. Anderson, reported last week as receiving permit to erect an electric light plant, will probably erect a large plant with power for an electrical street railroad.

Malakoff.—G. Malakoff is making efforts to raise money to start kaolin work.

Orange.—It is rumored that A. Gilmer will erect a large planing mill and a dry kiln.

Orange.—Lutcher & Moore contemplate doubling the capacity of their planing mill and will build a large dry kiln.

Paris.—It is stated that the Marshall, Paris & Northwestern Railroad Co. have secured the money to complete their road and will do so at once.

Pittsburg.—The capital stock of the company previously reported as formed to start a canning factory is \$10,000. W. H. Wakefield is president and S. S. Morris, treasurer.

Roby.—A mill and gin are reported to be erected.

San Angelo.—The San Angelo Fur Co. has been formed to dress and prepare beaver skins for market.

San Antonio.—The San Antonio & Aransas Pass Railway Co. contemplate extending their road through Louisiana, probably to Natchez, Miss., and are about running the preliminary lines.

San Antonio.—The T. F. Collins Manufacturing Co., capital stock \$100,000, has been incorporated by T. F. Collins, F. S. Austin, J. C. Collins, George Peyton and Thomas C. Nye.

Sherman.—The city council contemplates erecting an electric light plant and have been securing estimates.

Temple.—Chicago parties are negotiating to build a pork packing establishment. The mayor can give information if anything is done.

Texarkana.—The contract to build the new jail, previously reported, has been let. It will cost about \$10,000.

Whitewright.—Jones & Gilpin have, it is stated, contracted to build 15 dwellings.

VIRGINIA.

Abingdon.—It is reported that the Glomorgan Co., of Lynchburg, are negotiating to build water works.

Berkley.—It is stated that the Tunis & Serpell Lumber Co. will build a planing mill and a factory.

Big Island.—H. A. Jordan is prospecting for iron ore on his land.

Big Island.—Messrs. Clement and Sadler, backed by Richmond parties, will build the pulp mill previously reported, and have secured a site and will begin work as soon as the weather will permit. If the pulp mill is a success a large paper mill will be, it is stated, moved from Vermont to Big Island.

Callaway.—It is reported that a flour and corn mill and a saw mill have lately been started.

Callaway.—It is reported that the Piedmont Woolen Mills have lately been erected.

Callaway.—Lemon & Hirt will build a canning factory. Will want machinery.

Charlottesville.—A bill has been introduced in the legislature at Richmond to allow the Charlottesville & University of Virginia Electric Light & Gas Co. to erect poles, lay pipes, etc.

Danville.—A bill has been introduced in the legislature at Richmond to incorporate the Bee (Co) to do a printing and publishing business, with S. A. Moorman, J. D. Meadows and others as corporators. The capital is to be not less than \$1,000.

Estillville.—Edward K. Hyndman and wife, of Pittsburgh, Pa., have sold their interest in mineral lands in Scott and Wise counties to the Virginia Coal & Iron Co. The consideration is reported as \$1,499,000.

Lexington.—William Stewart, A. L. Johnston, C. W. Irvine and others are interested in the Lexington Street Railroad Co., a bill to incorporate which was lately reported as being introduced in the legislature at Richmond.

Lynchburg.—There is talk of a trunk factory being started.

Lynchburg.—A carriage factory will be started by Harris & Stewart.

New Castle.—A canning factory is being agitated.

Norfolk.—There is talk that the Norfolk & Western Railroad Co. (office, Roanoke) will soon begin work on another coal pier at Lambert's Point, previously reported.

Martinsville.—Parties have been negotiating for the erection of an electric light plant. J. E. Stovall can probably give information if anything is done.

Mt. Jackson.—R. G. Kelso will be interested in the creamery reported last week as to be started.

Pedlar Mills.—D. S. Turner contemplates starting the canning factory reported last week.

Pedlar Mills.—A stock company will probably be formed to start a large canning factory in time for next crop. U. D. Day can give information as soon as anything is done.

Petersburg.—The Petersburg Electric Light Co. are adding a 500-light incandescent plant on the Thomson-Houston alternating system.

Pulaski City.—The Swansea Land & Improvement Co. will build two store buildings and 25 more dwellings as soon as the weather will permit.

Richmond.—A street is to be extended through the property of the Tredegar Co., which will necessitate the building of a stone wall at a cost of \$12,000. The mayor can give information.

Richmond.—A. Oppenheimer Clay Drawry, S. S. Elam, M. Rosenbaum, W. L. Fleming and others have incorporated the New York & Richmond Manufacturing Co., capital stock \$150,000, to manufacture men's underwear. The company will operate a temporary plant at present and contemplate erecting a large factory.

Richmond.—Bills have been introduced in the legislature to incorporate the Richmond, Manchester & Petersburg Railroad Co., with W. E. Gaines, W. B. Brooks and others as corporators; the Norfolk & Dismal Swamp Steamboat Co. with a capital stock of not less than \$3,000, nor more than \$30,000, and C. H. Johnson, John Jacobs and others as corporators; the Big Stone Gap Water Co., (Big Stone Gap), with a capital stock of not less than \$5,000 nor more than \$500,000, and Charles T. Ballard, S. Torn and others as corporators; the Railroad Reform Rolling Stock Co.; the Sea-

board Water Co., (Norfolk), with a capital stock of not less than \$50,000 nor more than \$600,000, and W. B. Rogers, H. L. Smith and others as corporators; the Bee (Co.) of Danville, to do a printing and publishing business; the Suburban & Exposition Railway Co., to build a street railroad, with Ashton Starke, A. S. Buford and others as corporators; the Intermont Land & Improvement Co.; the Montrose Land & Improvement Co.; the Varina Iron Railroad Co., to build a railroad from the property of the Varina Iron Co., in Wythe county to the Norfolk & Western or some other railroad, with a capital stock of not less than \$115,000, and Evans R. Dick and others as corporators; the Loudon Creamery Association, (Lovettsville); the Portsmouth & Southwestern Railroad Co., to build a road from Portsmouth to Surry C. H., with a capital stock of not less than \$100,000 nor more than \$500,000, and John L. Watson, John Lesner and others as corporators; the Fauquier & Rappahannock Railroad Co., to build a railroad from some point on the Virginia Midland Railroad or branch or the Shenandoah Valley Railroad to Sperryville, with John T. Daniel, Basil B. Gordon, of Baltimore, Md., and others as corporators; and the Virginia Publishing Co., with a capital stock of not less than \$10,000, and Thomas Potts, A. G. Buford and others as corporators; a bill to appropriate \$65,000 to double the size of the insane asylum at Marion, and a bill to authorize Gordonsville to issue bonds to build water works.

Roanoke.—It is reported that the Norfolk & Western Railroad Co. are making surveys and estimates with a view to double tracking their road from New River to Roanoke, and possibly to Lynchburg.

Roanoke.—Waller P. Huff, Robert Angel, P. L. Gerry and others have formed the Roanoke Brick Manufacturing & Construction Co. to manufacture brick, build houses, &c. Will build works with a daily capacity of 25 M bricks. Their capital stock is to be not less than \$5,000 nor more than \$50,000.

Salem.—Messrs. Griffin have contracted to mine ore in Roanoke county for the Lynchburg Iron Co., of Lynchburg.

Sands.—Charles E. Manor contemplates starting a canning factory and wants to purchase an outfit of machinery.

South Boston.—A company has been formed to erect an electric light plant.

Staunton.—O. K. Lapham & Co. will enlarge their bark extract works.

Warrenton.—It is stated that William Johnson will start the canning factory previously reported.

Waynesboro.—It is stated that two canning factories are to be started instead of one, as previously reported. Wright & Gratton can probably give information when anything is done.

WEST VIRGINIA.

Charleston.—It is stated that the Great Kanawha Coal & Iron Co. has been formed and will soon commence developing lands.

Charleston.—It is reported that J. M. Camden, of Parkersburg, and others have secured control of about 40,000 acres of coal lands, and will make extensive developments.

Kearneysville.—Charles Roberts and Frank Getzendanner contemplate starting the creamery reported last week.

Point Pleasant.—The Buckeye Bridge Co. are negotiating to establish bridge works. W. C. Whaley can give information.

Riverview.—It is reported that Mr. McKell, of Chillicothe, O., contemplates building a railroad up the New river to open up his coal lands.

St. George.—The Tygart Valley Boom & Lumber Co., reported last week, will construct booms in the Tygart Valley river and establish lumber mills at Deedville, in Randolph county.

Thomas.—The West Virginia Central & Pittsburg Railway Co. (office, Piedmont) will extend their road to a point 32 miles from Thomas.

Weston.—It is reported that a furniture factory will probably be started.

Wheeling.—The Wheeling Natural Gas Co. and the West Virginia Natural Gas Co. are arranging to consolidate.

S. E. Allen, Winston, N. C., desires correspondence with parties operating canning factories, and wants information as to the business.

BURNED.

Atlanta, Ga.—The main building of the Southern Agricultural Works; loss \$25,000. Will be rebuilt at once.

Birmingham, Ala.—The planing mill of the Hughes Lumber Co.; loss about \$12,000.

Harrisburg, Ark.—The gin of George Jones.

Headland, Ala.—The grist mill and gin of William H. Taylor washed away by a flood.

Jefferson, Md.—The Eagle Flour Mills owned by G. T. Steiner & Co.; loss \$9,500.

Liberty, Va.—The planing mill, plaster mill and machine shop of Buck & Newsome; loss about \$4,000.

Mobile, Ala.—The county courthouse; loss \$50,000.

Mobile, Ala.—The saw mill of the Mobile Coal Co.; loss \$2,000. Will probably be rebuilt.

Ocala, Fla.—The fertilizer factory of B. Arentz; loss \$5,000.

Will Rebuild Mill.

VERNON, FLA., Jan. 13, 1888.

Editor Manufacturers' Record.

My grist mill, gin and a good deal of cotton was lost by fire. I intend rebuilding at once.

T. J. MILLER.

Will Enlarge Cotton Mill.

NEWTON, N. C., Jan. 15, 1888.

Editor Manufacturers' Record.

Will add 100 feet to present building. Fill partly with machinery this year.

NEWTON COTTON MILLS.

Enlarged Mill.

TROY, ALA., Jan. 16, 1888.

Editor Manufacturers' Record.

We have enlarged our mill just 50 per cent. since we started.

PIKE COUNTY GUANO CO.

Will Enlarge Tobacco Factory.

DURHAM, N. C., Jan. 19, 1888.

Editor Manufacturers' Record.

We have increased our paid in capital to \$600,000, our business last year having increased \$850,000. We are looking for much larger quarters in New York and will also enlarge here.

W. DUKE SONS & CO.

To Build a Bridge.

FREDERICK, MD., Jan. 19, 1888.

Editor Manufacturers' Record.

I think now a bridge (iron) will be constructed at Point of Rocks. We will not be ready to submit drawings for the bridge for thirty days at least.

J. D. BAKER.

Erecting Electric Light Plant.

FORT WAYNE, IND., Jan. 20, 1888.

Editor Manufacturers' Record.

We have Houston (Texas) city contract five years, 100 arc lamps. Are putting plant in ourselves and in addition to light for city use will put in 2,000 incandescent of our new alternating system, and probably 100 or 150 arc for commercial use.

FORT WAYNE JENNEY ELEC. LIGHT CO.

MACHINERY WANTED.

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, &c.

Bridge.—Bids for building a bridge across the Saluda river will be received until February 11 by J. P. Goodwin, Greenville, S. C.

Bridge.—A company is being formed at Carrollton, Ky., to build a bridge across the Kentucky river to cost about \$60,000, and information, etc., is wanted from bridge builders. Address J. E. Geier.

Canning Machinery.—Charles E. Manor, Sands, Va., wants to purchase an outfit of machinery for a canning factory.

Canning machinery will be wanted by Lemon & Hirt, Callaway, Va.

Cotton Mill Machinery.—George P. Horton, Wadesboro, N. C., wants to purchase machinery for a small cotton mill on time.

Engine.—R. White, St. Augustine, Fla., wants information as to the best type of slide valve engine for saw mill. Will want one of 100 horse-power.

Engine.—20 horse-power is wanted by T. Waskey, Old Hickory, Va.

Estimates on one tug-boat engine, 5x8 inches or 7x7 inches, boiler for same and other machinery are wanted by C. N. Ledwith, Apalachicola, Fla.

Fire Alarm System.—Proposals for a fire alarm system for Mobile, Ala., will be advertised for. The mayor can give information.

Gin Machinery.—R. S. Reinhardt, Iron Station, N. C., wants to purchase machinery to rebuild his gin.

Hoisting engine, double drum and double cylinder and 20 horse-power, and a rock crusher with revolving screens are wanted by Mr. Wilson, room 7, 102 Washington street, Chicago, Ill. Second-hand machinery preferred.

Ice machinery is wanted by James H. Hard, Bessemer, Ala.

Locomotive and Saw Mill Machinery.—The Keystone Lumber & Improvement Co., Bogue Chitto, Miss., want to purchase a locomotive, 3-foot gauge—Porter make preferred—and machinery for a saw mill with a daily capacity of 40 M feet.

Machinery for hoisting, sawing, polishing stone, &c., is wanted by Frank Teich, San Antonio, Texas.

Machinery for manufacturing shuttle-blocks, spool-heads, &c., is wanted by F. F. Cherry, Aurora, N. C. He wants also information as to where such goods can be sold.

Machinery for manufacturing shuttle bobbins is wanted by G. H. & L. W. Allred, Randleman, N. C.

Mattress Machinery.—The Spears Wadding Co., Memphis, Tenn., want to purchase machinery proper for manufacturing mattresses. Have boiler and engine.

Oil Machinery.—B. P. Clifton, Louisburg, N. C., wants to purchase machinery for a small cotton-seed oil mill. Prefer second-hand machinery if in good order and cheap.

Prices of block heads and a slab conveyor for a saw mill of 50 M feet daily capacity are wanted by Charles N. Fisher, Seven Oaks, Texas.

Steam Motor.—J. H. Dorsey, Athens, Ga., wants to correspond with parties who have good second-hand motors for sale. Gauge of tracks is 4 feet.

Canning Factory.

PERRYMAN'S, MD., Jan. 23, 1888.

Editor Manufacturers' Record.

I will start a canning factory on the farm I have recently purchased. The main building will be 40 feet wide, 80 feet long, with necessary machinery for packing 25,000 cans of corn or tomatoes per day.

CHAR. R. WILSON.

MANUFACTURERS' RECORD.

Mineral Lands to be Developed.

LOUISVILLE, Ky., Jan. 11, 1888.

Editor Manufacturers' Record:

The Standard Coal & Mineral Co. was organized some time since for the purpose of developing the mineral lands on the line of the L. St. L. & O. R. R. This company has about 1,500 acres of the finest coal land in Western Kentucky, immediately on the line of the road, and is ready to sell or lease a part of its lands to other parties. This company will develop part of its lands. The vein of coal is four feet of best quality. The Beattyville Mineral & Timber Co. has recently been organized and has bought 6,000 acres of the finest coal, iron and timber lands in Eastern Kentucky, immediately on the Kentucky river, with the L. C. & V. R. R. running through it. Will develop these lands and may sell a part.

J. T. GATHRIGHT.

To Build \$35,000 Hotel.

BRUNSWICK, GA., Jan. 16, 1888.

Editor Manufacturers' Record:

The Brunswick Company, of which the writer is vice president, contemplates the erection at an early day of a hotel on the beach at St. Simons Island, near Brunswick, and have appropriated \$35,000 to that purpose. This company, which has recently been chartered with an authorized capital of \$5,000,000, contemplates entering extensively into the development of the advantages of Brunswick as a seaport, as a manufacturing point, and to afford every facility for tourists to enjoy the salubrious climate both winter and summer.

W. E. KAY.

To Build a Hotel.

GUNTERSVILLE, ALA., Jan. 16, 1888.

Editor Manufacturers' Record:

We have just organized the Wyeth City Land & Improvement Co. with a paid up capital of \$100,000, with no stock to be put on the market, the company relying upon dividends for profit. We propose to build a hotel to cost not less than \$10,000, and to establish a bank with a capital of not less than \$25,000. We propose to donate sites and grounds to all manufacturing establishments which may locate among us. The corporation, owning a very large quantity of land in and around the present town of Guntersville, offers superior inducements for the establishment of spoke and handle factories, broom factories, canning establishments, wagon and buggy factories, cotton factories, iron and rolling mills, tanneries, boot and shoe manufactures, paint mills, &c., all of which can be made exceedingly profitable here. We have iron beds on the property of the company—as well as on much adjacent property—eight and twelve feet thick, of a very good quality, and so situated as to be easily mined.

JOHN A. LUSK.

Canning Factory Wanted.

LARKINSVILLE, ALA., Jan. 20, 1888.

Editor Manufacturers' Record:

The citizens of Larkinsville and vicinity are very anxious for some enterprising man to establish a canning factory in their midst.

W. J. HIGGINS.

Iron Furnace Projected

JOHNSON CITY, TENN., Jan. 22, 1888.

Editor Manufacturers' Record:

I have obtained a charter and organized a company to build a furnace at this place. Just when operations will commence I cannot say. We are ready to build, but may be delayed a little while on account of coke. But when we get a road from this place to Dickinson and Wise counties, Va., (Southwest Virginia) we will have access at sixty miles distance to the finest coking coal field on the American Continent, Connellsville not excepted.

F. A. STRATTON.

Capital Wanted to Enlarge Furniture Factory.

ROME, GA., Jan. 18, 1888.

Editor Manufacturers' Record:

Three years ago I rented the second-story of my planing mill to a party here with very small means, who began making cheap furniture, and now his orders for furniture are so large that I have had to enlarge the building from a 40x60 feet, 2 story, to a 90x100 feet, 3 story building, adding new machinery, &c. This party is doing a fine business, but needs more capital, and the right man with capital could secure a fine partnership with a good man and a growing business by writing to me.

JAS. B. HILL.

Street Railroad and Lime Works to be Built.

LEEDS, ALA., Jan. 16, 1888.

Editor Manufacturers' Record:

The Citizens' Railroad Co. is an assured fact, but all the stock has not been subscribed, therefore, officers, &c., have not been elected. There will be established in our city a lime kiln. The Leeds Planing Mill Co. will enlarge their establishment and increase their capital stock to \$10,000; also add new machinery.

HANDLEY & MURRELL.

Cigarette and Smoking Tobacco Factory.

MT. AIRY, N. C., Jan. 17, 1888.

Editor Manufacturers' Record:

There is no town in our State that presents a more lucrative opening for a \$100,000 bank than Mt. Airy. Having only one bank (capital of \$25,000), and being the center of a rich agricultural country, a railroad terminus, with 30 manufacturing industries, we are unquestionably the fastest growing town in the State. W. E. Patterson, of this place, is building a cigarette and smoking tobacco factory.

J. P. RAWLEY.

DALTON, GA., Jan. 19, 1888.

Editor Manufacturers' Record:

The name of the company to erect plant here is Southera Steel Co. John Leighton president, formerly from England. The plant is now in Chattanooga, but will soon be removed to Dalton, a much better point for manufacturing. We have cheap land and good railroad facility.

Will Increase Capital Stock.

BIRMINGHAM, ALA., Jan. 18, 1888.

Editor Manufacturers' Record:

We propose to increase our capital stock to \$200,000. BIRMINGHAM TOOL & IMP. CO.

Will Enlarge Brick Works.

GREENVILLE, MISS., Jan. 12, 1888.

Editor Manufacturers' Record:

The Greenville Brick & Improvement Co. is the successor to the Greenville Steam Brick Works. The new corporation organized with a capital of \$50,000, and will greatly enlarge the brick making capacity of the company. We also hope to enter extensively into the manufacture of tile and terra cotta. We expect to erect additional brick machine and dryers.

SCOTT & SIMS.

ST. GEORGE, W. VA., Jan. 21, 1888.

Editor Manufacturers' Record:

The Tygarts Valley Boom & Lumber Co. will organize in the near future. Its primary object is booming the Tygarts Valley river, but in connection therewith will establish lumber mills at Leedsville, Randolph county, W. Va., at the point where the W. Va. C. & P. R. R. touches that river. Our charter virtually gives no exclusive boom privileges on that river above the mouth of Roaring creek, and is one of the most valuable franchises obtained in this State for years and will be utilized.

W. B. MAXWELL.

Saw and Planing Mill.

DETROIT, TENN., Jan. 16, 1888.

Editor Manufacturers' Record:

We are putting in a 20 horse-power saw and planing mill. Would be pleased to hear from manufacturers nearby who want wagon, plow and building material of poplar, oak, ash, cypress and walnut.

J. C. VAUGHAN & CO.

More Canning Factories in Virginia.

PEDLAR MILLS, VA., Jan. 17, 1888.

Editor Manufacturers' Record:

D. S. Turner contemplates starting a canning factory in the spring. Also I think there are good prospects for another one on larger scale by a joint stock company some time during summer.

M. D. DAY.

Screw Factory to be Started.

BESSEMER, ALA., Jan. 20, 1888.

Editor Manufacturers' Record:

There will be in operation in Bessemer, Ala., within 30 days, a screw factory. Twenty-seven machines will be operated at the start, but capacity will probably be doubled shortly. All sizes, from $\frac{1}{4}$ inch to 3 inches will be made.

JAS. H. HARD.

To Erect Large Building.

FORT WORTH, TEXAS, Jan. 18, 1888.

Editor Manufacturers' Record:

We have just completed a subscription list of \$100,000, and will, at early day, commence the erection of a six-story brick and stone building to be known as the Board of Trade building.

F. M. BURROWS.

To Manufacture Brick and Tiles.

PARKERSBURG, W. VA., Jan. 16, 1888.

Editor Manufacturers' Record:

We organized a company in this place and are incorporated under the laws of West Virginia for the purpose of manufacturing brick and tile. Have bought a machine already for making brick with a capacity of 25 M per day, and will be ready for operation by April 1st.

C. E. BATSON, Sec.

Saw and Planing Mill.

MCMINNVILLE, TENN., Jan. 18, 1888.

Editor Manufacturers' Record:

Messrs. Curl & Gribble will build a saw and planing mill here, and will manufacture all kinds of building lumber. All of their machinery is bought, and they will get under way about March 1st. The shaved barrel hoop factory already in operation here, will be consolidated with this mill. \$3,000 capital employed.

R. M. REAMS.

HELENA, ARK., Jan. 21, 1888.

Editor Manufacturers' Record:

The Helena Electric Light & Power Co., of this city, was organized to-day. Capital stock \$25,000. James Summers is president, and Jacob Trieber, secretary.

J. TRIEBER.

To Develop Coal Mines.

BESSEMER, ALA., Jan. 14, 1888.

Editor Manufacturers' Record:

The Sheffield & Bessemer Mining Co. was organized on the 4th inst. with a capital, fully subscribed, of \$200,000, chiefly for the purpose of mining coal in the coal creek section on the Kansas City, Memphis & Birmingham Railroad, near Bessemer, Ala., and selling the same. Its officers are Henry B. Tompkins, of Atlanta, Ga., president; David Roberts, Charleston, S. C., vice-president; J. G. Chamberlain, Jasper, Ala., general manager, and Andrew M. Adger, Birmingham, Ala., secretary and treasurer.

ANDREW M. ADGER.

Contemplate Starting Furniture Factory.

ATHENS, GA., Jan. 10, 1888.

Editor Manufacturers' Record:

We expect to open a factory during this year, and will make a complete line of cheap furniture.

EDGE, DORSEY & CO.

Canning Factory.

TROUTVILLE, VA., Jan. 17, 1888.

Editor Manufacturers' Record:

I am going to start a canning factory. I have my house built. The size is 50x150 feet, 2 stories. I expect to pack 5 or 6 or 7,000 cases, which will take about 30 hands.

J. J. FEATHEN.

Building Shingle Mill.

PARAGOULD, ARK., Jan. 18, 1888.

Editor Manufacturers' Record:

Mr. N. C. Shepard is building a shingle mill. The capacity will be 100 M shingles per day. Mill is now in process of construction, and will be in operation in the next sixty days.

H. H. HADLEY.

Will Probably Double Capacity.

BIRMINGHAM, ALA., Jan. 21, 1888.

Editor Manufacturers' Record:

We will probably double our capacity within the next six months.

BIRMINGHAM TACK FACTORY.

Will Erect Ice Factory.

HOPKINSVILLE, KY., Jan. 20, 1888.

Editor Manufacturers' Record:

We will erect a ten-ton ice plant, and hope to be in operation in 90 days.

F. L. ELLIS & CO.

Will Rebuild Saw Mill.

CHARLOTTE, N. C., Jan. 20, 1888.

Editor Manufacturers' Record:

I will rebuild my saw mill. Will not rebuild gin. Hope to be running in ten days.

C. O. MERCER.

Flour Mill.

WALTON, KY., Jan. 21, 1888.

Editor Manufacturers' Record:

Rouse Bros. have just started a first-class flour mill here.

B. F. NORTHEUN.

Iron Foundry.

LITTLE ROCK, ARK., Jan. 19, 1888.

Editor Manufacturers' Record:

We are going to start a foundry, with capital of from \$10,000 to \$12,000.

BRICE & O'KELLY.

Organizing to Build Cotton Factory.

FOREST CITY, N. C., Jan. 20, 1888.

Editor Manufacturers' Record:

A stock company is forming in this town to build a cotton factory to cost at least \$50,000. Operations are expected to be commenced next September.

W. J. HILTON.

Tannery to be Built.

JOHNSON CITY, TEXAS, Jan. 22, 1888.

Editor Manufacturers' Record:

Arrangements are being made to build a tannery at this place with a capacity of 550 hides per day. It is to be done by Northern parties, who are now in that business, but whom I am not now at liberty to name.

F. A. STRATTON.

Will Erect Electric Light Plant.

ATHENS, TENN., Jan. 21, 1888.

Editor Manufacturers' Record:

We will erect an electric light plant as soon as practicable and at an early day.

THE ATHENS MINING & MFG. CO.,
R. J. FISHER, Manager.**To Build Large Flour Mill and Elevator.**

FORT WORTH, TEXAS, Jan. 21, 1888.

Editor Manufacturers' Record:

Messrs. Cameron & Tatum, of this city, have plans and are clearing the ground for a \$250,000 roller mill and elevator for Fort Worth.

F. M. BURROWS.

Information Wanted.

CARROLLTON, KY., Jan. 20, 1888.

Editor Manufacturers' Record:

A company is being formed to buy an old mill here and overhaul it. A company is being formed to bridge the Kentucky river at this point, known as the Carrollton & Prestonville Bridge Co. The bridge will cost about \$60,000. They desire information from bridge builders in regard thereto.

J. E. GRIER.

To Build Water Works.

GREENVILLE, MISS., Jan. 18, 1888.

Editor Manufacturers' Record:

Everything is in readiness to begin work on our water works and electric light. Experts will be here to-morrow to bore for water for the plant, and the pipe for mains will soon follow. The weather is a little rough, but brighter skies are promised.

GREENVILLE WATER WORKS CO.,

JAS. BURKE, Gen'l Man.

To Develop Mineral Lands.

STEGALL'S, GA., Jan. 19, 1888.

Editor Manufacturers' Record:

I have a variety of minerals on my farm (2,100 acres) and intend developing them. Have organized the Georgia Graphite Co., for a large deposit of this material on my place.

C. M. JONES.

ST. JOSEPH, MICH., Jan. 20, 1888.

Editor Manufacturers' Record:

The machinery of my saw mill, stave mill and box factory is to be removed to Decatur, Ala. A company has been formed to operate same there under the name of the Alabama Lumber & Fruit Package Co.,

H. C. HIGMAN.

To Manufacture Brick.

ROANOKE, VA., Jan. 24, 1888.

Editor Manufacturers' Record:

The Roanoke Brick Manufacturing & Construction Co. is composed of Waller P. Huff, Robert Angel, P. L. Yerry and others. Will ask for charter and elect officers in a few days.

WALLER P. HUFF.

Enlarging Canning Factory.

TYLER, TEXAS, Jan. 19, 1888.

Editor Manufacturers' Record:

We are enlarging our canning factory; also will add a plant for the manufacture of fruit cans this season, capacity 25,000 per day.

TYLER CANNING CO.

Building Ice Factory.

TITUSVILLE, FLA., Jan. 18, 1888.

Editor Manufacturers' Record:

The ice factory is being built. The machinery is to be here in a few days I am informed. Mr. F. M. Morton is here having it put up, and Mr. Meyers is the engineer to put the machinery in.

J. E. GRUBER.

The Covington & Macon Railroad.

Messrs. Alexander Brown & Sons, of Baltimore, have completed their negotiations with the Covington & Macon Railroad Co., and have made an arrangement under which they will take the bonds of the company as fast as they are issued, as ten mile sections of the road are completed. They also get a large block of the stock, which virtually gives them control of the company. The road, though at present only in running order from Macon to Monticello shows very handsome earnings. It is being rapidly pushed, and will be completed to Madison inside of 60 days, and to Athens in about 5 months, where it will connect with the Northeastern Railroad of Georgia, as well as with the Seaboard & Roanoke system, which is being extended to that point. Branches are also in course of construction from Monticello eastward to Eatonton, there to connect with the Central Railroad of Georgia; from Monticello westward to Griffin, and northwest through Covington to Atlanta. The road of standard gauge, 56-pound steel rails, is only bonded for \$12,000 a mile, and is undoubtedly a very valuable property. The bonds will be marketed before very long.

THE annual reports of President Gordon and General Manager Bond, of the Decatur Land, Improvement & Furnace Co., make a wonderfully good showing of the work done by that company in one year. Particulars of the many new industries located at Decatur, which have been fully described in the MANUFACTURERS' RECORD, were given, and then it is

shown that at present prices the city lots owned by the company are valued at \$5,586,465, not including 1,000 acres of eligibly located land not yet sub divided, but very valuable, and 40,000 or 50,000 acres of mineral lands. This is certainly a wonderful showing, and indicates that there is scarcely a limit to the future possibilities of this company, for its lands must steadily enhance in value with the great growth of that pushing town, which has dubbed itself "The Chicago of the South."

IT is announced that a \$250,000 fuel gas plant is to be established at Chattanooga to furnish fuel gas about as cheap as natural gas. Decatur, as previously stated in the MANUFACTURERS' RECORD, has contracted for similar works. The importance of such plants to these two progressive cities can scarcely be overestimated, and other Southern towns must follow their example.

THE Daily Commercial, of Pensacola, Fla., has issued its "Annual" for 1888 in the form of an attractive illustrated almanac, containing many facts and figures of interest.

Stealing Newspaper Names.

CHARLOTTESVILLE, VA., Jan. 21, 1888.

Editor Manufacturers' Record:

We notice that in quoting from our journal in your January 21st issue, you credit our journal as the "Fruit Grower, of Virginia." Now, our journal is an old established journal, known all over these United States as "The Monticello Farmer and Grape Grower," and when our brethren of the press quote from us, or use our name in any way, we hope that they will give proper credit. We ask this in justice to us and our paper, as it is now becoming very fashionable with new sheets springing into existence to steal the name, or a part of the name, of old established journals, that they may ride into "glory" on the saddled steed of another, who has spent years of time and much money to establish an enterprise, that he might make a livelihood by it. I think that every true and honorable citizen, and every respectable journal, should frown upon such outrages. J. A. PECK, Editor "Farmer and Grape Grower."

IT is difficult to overestimate the importance to the whole South of the establishment of the two great car plants at Anniston and Decatur by the United States Rolling Stock Co., of New York. This company now have a capital of \$3,000,000, which will be increased to \$4,000,000. They own, it is said, some 4,000 cars and locomotives, which they lease to railroads. They build cars of all kinds—passenger, parlor and freight cars—as well as locomotives, for sale and for lease. Their works now at Urbana, Ohio, will be removed to Decatur, and for this purpose five buildings, each 1,500 feet long, will, it is stated, be built as rapidly as possible. The number and size of these buildings shows the immensity of this enterprise. At Anniston there are large car wheel, car axle and car works, now employing 400 hands. These works have been purchased by the United States Rolling Stock Co. as the nucleus of what it is claimed will be one of the most gigantic car building plants in America. The company have taken charge and are now preparing for their great enterprise. They have already ordered over \$100,000 worth of new machinery and will invest \$750,000 in the Anniston works in addition to the present plant, making an actual cash investment of \$1,000,000. They will employ at the start 1,000 mechanics, and the superintendent states that 600 skilled men will be carried down from the North. Orders for some 1,200 or 1,500 cars, including a large number of finely finished passenger coaches, are on the books for delivery by the first of May. The establishment of these two great enterprises by one company shows the unbounded faith of capitalists in the continued progress and prosperity of the South.

Foreign Exchange Quotations.

ALEXANDER BROWN & SONS.

BALTIMORE, Jan. 25, 1888.

Sterling.—Firm.Selling. Commercial.
60 days..... 48 1/2 60 days..... 48 1/2
3 days..... 48 1/2 3 days..... 48 1/2*Francs.*—Selling. Commercial.
60 days..... 520 1/2 60 days..... 520 1/2
3 days..... 518 1/2 3 days..... 518 1/2*Reichsmarks.*—Selling. Commercial.
60 days..... 95 1/2 60 days..... 94 1/2
3 days..... 95 1/2 3 days..... 94 1/2*Guilders.*—Selling. Commercial.
60 days..... 49 1/2 60 days..... 49 1/2
3 days..... 49 1/2 3 days..... 49 1/2**Baltimore Stock Exchange Quotations.**

Reported by ALEXANDER BROWN & SONS, Baltimore.

BALTIMORE, Jan. 25, 1888.

	BID.	ASKED.
Virginia 6's Consols C.	40	40
Virginia 4-5 10c-10s	35 1/2	35 1/2
Virginia Consol. Coupons	30	30
Virginia 10c Coupons	30	30
Wil. & Wel. Gold, 7's	117	117
Wil. & Wel. 5's	109	109
Wil. & Wel. Aug. 6's	117	117
Atlanta & Char. 7's	117	117
Atlanta & Char. Income, 6's	95	95
Col. & Green. 1st 6's	100 1/2	100 1/2
Va. Midland, 1st, 6's	118	118
Va. Midland, 1st, 5's	117 1/2	117 1/2
Va. Midland, 3d, 5's	110	110
Va. Midland, 4th, 3-4 1/2	73	73
Va. Midland, 5th, 3 1/2	102	102
Char. C & Aug. 1st, 7's	110	110
Char. C & Aug. 1st, 5's	111	111
Ga. Pacific 1st, 6's	107 1/2	107 1/2
Ga. Pacific 2d, 6's	60	60
Cape Fear & V. Valley 6's	95	95 1/2

If you wish to keep posted on the progress of the South, read the MANUFACTURERS' RECORD. Price \$3.00 a year.

MANUFACTURERS' RECORD.

To Build Tobacco Prize Factory.

OXFORD, N. C., Jan. 16, 1888.

Editor Manufacturers' Record:

I expect to build a tobacco prize factory next summer, 75 by 125 feet, 4 or 5 stories, brick, with all the improvements necessary for a first class tobacco prize factory.

J. F. ROGERS.

To Bore for Gas and Oil.

CHATTANOOGA, TENN., Jan. 16, 1888.

Editor Manufacturers' Record:

We have organized the Citizens' Oil & Gas Co., of Chattanooga. We intend to sink our first well in the Sequatchie valley. We are now soliciting subscriptions. Shares are \$50 each. Capital stock is to be not less than \$150,000.

O. J. SHERIDAN.

New Cotton Mills for New Orleans.

NEW ORLEANS, LA., Jan. 20, 1888.

Editor Manufacturers' Record:

Cotton manufacturing down here has taken on a most decided boom. Maginnis Mill is doubling present capacity. Messrs. Moore, Hyams & Co. are starting a \$300,000 mill, and we are at work raising money for another. F. W. FRERET & Co.

Ice Machinery Wanted.

BESSEMER, ALA., Jan. 17, 1888.

Editor Manufacturers' Record:

A company has been formed at Bessemer, Ala., with a capital stock of \$10,000, for the purpose of manufacturing ice. Jas. H. Hard, Bessemer, Ala., may be addressed by persons having machinery for sale.

J. H. H.

C. R. MAKEPEACE & CO.
ARCHITECTS and MILL ENGINEERS
PROVIDENCE, R. I. Plans, Specifications and Estimates furnished for Cotton and Woolen Mills.D. W. K. PEACOCK,
Real Estate Agent,

CARTERSVILLE, GA.

Minerals a Specialty.
Refers to THE HOWARD BANK, Cartersville, Ga.Manufacturers' Bureau of Fort Smith, Ark.
Invite correspondence and propositions from manufacturers with a view to locating at Fort Smith. Fort Smith is the center of an immense semi-anthracite coal, lumber, iron and cotton region, with railroad facilities giving close connections with the markets of Kansas, Texas, Missouri, Indian Territory and Arkansas. Population in 1880, 7,500; in 1886, 14,000; in September, 1887, 18,000.

NOTICE TO MANUFACTURERS.

We have a cotton mill of 8,000 spindles and 200 looms, now lying idle, which we would like to work on shares with a practical mill man who has some capital to invest. Splendid opportunity to right man.

F. W. FRERET & CO.,

No. 6 TCHOUFOULOUS STREET,
New Orleans, La.

ARCTIC ICE MACHINE MFG. CO.

Works, 4, 6, 8 & 10 West Street, Cleveland, O.

Manufacturers of Machines for Making Ice and for Refrigerating Breweries, Pork Houses and buildings of all kinds requiring a steady, low temperature. Over 100 of our machines now in use. Send for any particulars desired.

P. O. Box 92, Cincinnati, Ohio, or P. O. Box 348, Cincinnati, Ohio.

The Cincinnati Ice Machine Co.,
CINCINNATI, OHIO.
MANUFACTURERS OFIce and Refrigerating
MACHINES.

The most durable, economical and best in the world. The only machine which makes its full rated capacity of chemically pure ice in hot climates. Send for circulars.

REAL ESTATE IN A
Booming Alabama Town
FOR SALE.Three Hundred Choice Business
and Residence Lots in the
CITY OF ANNISTON.

This property is the best in the city, and having been bought before the boom, will be sold at prices affording investors a rare opportunity to make certain and handsome profits. Address

F. M. HIGHT, Anniston, Ala.

Blast Furnaces Wanted.

The Athens Mining & Manufacturing Co., Athens, Tenn., are erecting \$500,000 new manufacturing improvements upon their property, and are opening, with a new railroad, the finest iron fields in the South. They desire to have one or more blast furnaces located at Athens, and make the following offers to iron manufacturers and capitalists:

1. They will donate an excellent site free of cost, and in addition will give \$10,000 cash subsidy upon closing of contract and execution of satisfactory bond for the erection, as soon as practicable, of a furnace with 100 tons daily capacity; or will donate site and subscribe for \$25,000 stock. The same offers are made proportionately for furnaces of less capacity.

2. They will lease the mines upon royalty or will deliver at furnace both red and brown ores, superior in quality to any at present mined in the South, and which will yield not less than 50 per cent. in the furnace, at say \$1.25 to \$1.50 per ton, or anyway 10 per cent. less than ores proportionately rich cost Chattanooga furnaces. They will contract to deliver any number of tons daily. Lowest freight rates will be obtained on manufactured products to markets.

The finest limestone can be had on the property for cost of quarrying.

Coke can be had at Chattanooga prices.

Analysis of the ores will be furnished upon application. No place in the United States has better advantages than Athens for the cheap manufacture of superior iron.

The company reserves the right to select any one or two of such propositions as may be received.

Correspondence solicited.

R. J. FISHER, Treas. and Gen'l Man.

Babylonia, 1888.

In general it will be about the same as in '87. Nothing in Babylonia ever pleased more people than Finger-play rhymes and pictures. They have even been sought by Kindergartners here in Boston and elsewhere; and the author has personally taught them. Six of the '88 Babylonds will contain new Finger-plays. The other six will have a series of baby stories in rhyme about Crickets, how they manage their babies, with many pictures. Me and Toddlekins is a baby-cat story all through the year by Margaret Johnson, with pictures also by Margaret Johnson. There will also be a lot of jingle bits and s'ory bits and picture bits, so many as to make you wonder where the next year's enterainment is to come from. Fifty cents a year. A copy sent for five cents.

D. LOTHROP CO., Publishers, Boston.

Our Little Men and Women,
1888.

The aim of this magazine is to interest children just at the time they begin to read for themselves and lead them along for a year or two with pictures and stories and pleasant tasks so pleasant as to make them forget the task part altogether. The following outline includes the larger topics of the year: Pocahontas teaches a little early American history through the year. A French story, Susanna's Auction, full of amusement. A story a month entitled Laura's Holidays suggests to other little girls what they can do on holidays. A story a month on Tiny Folks in Armor; which means beetles. A flower poem in every number. Buffy's (six) Letters to his Mistress. Buffy is a coon cat. Six Mexican stories on Little People of the Plaza; also about some Mexican animals. Besides there are many, too many to tell of, stories short and bright and unexpected. With all this entertainment of picture and humor there is a serious purpose all through implied in the name, Our Little Men and Women. It is to teach and lead the children to take reading for profit; but pleasure comes first as it ought. A dollar a year. Five cents for a sample copy.

D. LOTHROP CO., Publishers, Boston.

GREEN FOREST,
Rockbridge County, Va.

Best location in the State for a Furnace. Vast beds of rich Buena-Vista iron are at hand. Coke at less than three dollars per ton. Eight acres for a site offered FREE on the S. V. R. and the R. & A. Railroad.

Best location for a Paper Mill. Supply of soft wood unlimited. Two acres FREE for a site.

Best location for a Woolen Mill. One acre FREE for a site. Large water power available. Write to

B. C. MOOMAW.

West Point, Va.

A growing town. Property increasing in value. Factories invited. New enterprises exempt from taxation.

Splendidly located on York river.

Steamer lines to Europe, New York

—Baltimore, &c.—

Oysters and fish in unlimited abundance. Surrounded by the great fruit and trucking country of Virginia. For any particulars desired, address,

E. WILKINSON, MAYOR.

R. H. NEILSON.

E. E. MASTERMAN.

R. H. Neilson & Co.

REAL ESTATE

—AND—

Abstract Agents

Bond and Stock Brokers,

Tuscaloosa, Alabama.

Ten years' experience in handling Southern lands. Coal, iron and pine lands a specialty. Refer with permission to F. S. Moody, president First National Bank; J. H. Fitts, president Castle Hill Land Co., and Fitts' Bank.

Office up Stairs, Over Spiller's Store.

Well posted in coal and pine lands.

NOTICE

→→→

—TO—

Manufacturers.

Special attention is directed to persons engaged in manufacturing industries to the property of the South Baltimore Harbor & Improvement Co., located at Curtis Bay, about one mile southeast of Light Street Bridge, being the Southern Boundary of Baltimore City and near the extensive Car Works just completed and in operation. Particular notice of manufacturers East and North of Baltimore is called to this locality, which, besides its proximity to the Southern markets, has many advantages, such as railroad and water communications, cheap house rents, easy access to the city, &c., &c. The location is high and healthy, rising to about 160 feet above tide water. For further particulars apply to

W. M. S. RAYNER,

Pres. S. B. H. & I. Co.

8 E. Lexington St.

BALTIMORE.

Gallatin, Tenn., Cotton Factory
FOR SALE.

Factory is situated immediately on Chesapeake & Nashville R. R., and right in city of Gallatin, on 126 acres, with sufficient machinery to run the looms to their full capacity; never failing water for all purposes. Machinery all in good running order. All machinery automatic and of latest improved kind. Makes from 7,000 to 7,500 yards of goods per day. Looms 4-4, but arranged to make, when desired, either 3 or 6. Will be sold at a bargain. Machinery will be sold separately if desired. There are some 30 acres of land adjoining factory. For particulars address

BANK OF GALLATIN,
Gallatin, Tenn.Cotton Yarn Mill
At Augusta, Ga.

FOR SALE.

Will be sold at public outcry, on 7th day of February, 1888, at 12 o'clock, noon, at the Lower Market House, in the City of Augusta, Ga., under regular Administrators' Sale, by virtue of an order of the Court of Ordinary of Richmond County, Ga., the property known as THE SHAMROCK MILLS, situated on and run by water-power derived from the Augusta Canal, consisting of ninety-five hundredths (95-100) of an acre, more or less of land, together with the buildings thereon and all machinery connected therewith, embracing twenty-four hundred and ninety-six (2496) spindles and all necessary machinery for the manufacture of fine yarns. Automatic Sprinklers throughout. For further particulars apply to Joseph B. Cumming or Charles A. Harper, Attorneys at Law, Augusta, Ga.

C. G. GOODRICH, G. J. FARO.

J. E. HARPER, J. B. DOUGHERTY,

Administrators on Estate of John Davison

at Law, Augusta, Ga.

A Rare Chance

FOR SALE.

A well-equipped planing mill. Building, iron and brick. First floor, 80 by 100 feet; second floor, 30 by 80 feet. 40 horsepower engine and boiler, shafting, pulleys, belting, blower, one flooring machine, two turning lathes, resaw, one 12-inch Fay molder, one endless bed planer, one self-feed rip saw, one swing saw, one iron-working lathe, one band saw, one scroll saw, one Universal rip saw, one single head shaper, one 4 inch molder, one sander and lot small tools.

All this machinery and building were new two years ago, of most improved patterns, and is in perfect working order, located within 100 yards of the Union passenger depot. It affords a strictly first-class investment. Address

LOCK BOX 566,
MONTGOMERY, ALA.SALE OF
Cotton Factory

FLOURING MILL,

AND OTHER

Valuable Real Estate.

By virtue of a deed in trust, executed to me by A. Hines and wife, M. B. Hines, of Surrey county, recorded in book 1, page 520-521, register's office of Surrey county, on 25th day of June, 1888, I will expose to sale at public auction in Mt. Airy, on WEDNESDAY, the 1st day of February, 1888, the following described real estate, lying in the town of Mt. Airy on the Ararat river, known as the HAMBURG MILLS, containing 41 $\frac{1}{2}$ acres. On this tract is situated a BRICK COTTON FACTORY, fully equipped with machinery, a VALUABLE FLOURING MILL, SHOE FACTORY, STOREHOUSE, and a number of tenement houses. This is one of the finest water powers in Surrey county. The Mill is within one mile of the railroad, and is one of the finest properties in North Carolina. Terms of sale, cash.

J. C. BUXTON,

Trustee

Dec. 12th, 1887.

ALABAMA'S GREAT MINERAL WEALTH

SURROUNDS THE

★ CITY OF TALLADEGA, ★

Which, according to statistics, is the **MOST HEALTHFUL CITY IN ALABAMA**, and the County Seat of Talladega County.

THE CITY HAS A POPULATION OF 5,000, AND ITS POPULATION IS RAPIDLY INCREASING.

TALLADEGA is on the main line of the E. T. V. & G. Railroad, the A. & A. Railroad, and is the present terminus of the T. & C. Railroad. Work is rapidly progressing on the Birmingham & Savannah Air Line Road, between Birmingham and Savannah, and within twelve months this road will be completed via Talladega from Birmingham to Savannah, which will place Talladega on the direct line from Birmingham to deep water on the Atlantic, making

TALLADEGA ONE OF THE BEST DISTRIBUTING POINTS IN THE STATE.

THE CITY HAS

AN EXCELLENT SYSTEM OF COMMON GRADED SCHOOLS,

With a scholastic population of 500, and **THE MOST COMMODIOUS AND ATTRACTIVE PUBLIC SCHOOL BUILDING IN THE STATE**. The main building is a three-story brick, slate roof structure, well ventilated, heated by steam; has accommodations and seating capacity for 500 pupils. This school is owned and sustained by the city. All branches of English literature, foreign languages, music, the sciences and art, are taught for a nominal tuition. Among other educational institutions are the following:

SYNODICAL FEMALE INSTITUTE, Property valued at \$50,000.

D. D. & B. INSTITUTE, Property valued at \$150,000.

BLIND INSTITUTE, (in course of construction,) property valued at \$150,000.

FOSTER COLLEGE, property valued at \$150,000.

No other city in Alabama has so many educational institutions and so many public buildings.

← **TALLADEGA HAS THE MOST COMPLETE SYSTEM OF WATER WORKS IN THE STATE.** →

The stand pipe has a capacity of 175,000 gallons, and into this reservoir a supply of fresh, clear, pure water is pumped every day from a large spring located in the heart of the city, which discharges over 2,000,000 gallons per day. The gravity pressure from this system is 90 pounds to the square inch in the business portion of the city. The city has broad streets, well macadamized and shaded with beautiful trees, and is well lighted with a **SUPERIOR QUALITY OF GAS**. Sixty fire plugs and forty gas lamps protect against fire and illuminate the streets.

A **LARGE FURNACE PLANT** gives employment to thousands of hands, and makes a high grade of chilled car-wheel iron from ores, limestone and coal within ten minutes haul by rail, or an hour's haul by wagon. **FOUR LARGE LUMBER MILLS**, with an aggregate daily capacity of 200,000 feet of lumber, cut from the long-leaved yellow Pine of this country. **FOUR BRICK YARDS** are in active operation. A **SASH, DOOR** and **BLIND FACTORY**, a **FOUNDRY, MACHINE SHOP, FLOUR MILL, COTTON-SEED OIL MILL**, and various other industries are in successful operation, and the **TALLADEGA ICE CO.** cools the thrifty population with pure ice at 50 cents per hundred. Another large furnace plant will be completed within the next ten months. A Spoke and Handle Factory and many other industries are projected, with a view to early completion.

Taxable property has increased 100 per cent, within the past twelve months. The rate of taxation is limited in the city charter to half of one per cent, and the city offers an exemption from taxation to all manufacturing enterprises for a period of ten years. The county of Talladega supplies more crude material, in the way of minerals and timber, than any other county in the State. Almost within the corporate limits of the city are extensive deposits of the highest grades of limonite ores, yielding 50 to 58 per cent. metallic iron, with only a trace of phosphorus, and limestone abounds in the greatest abundance. Coal is within twenty miles by rail.

THE TALLADEGA LAND & IMPROVEMENT CO. owns 5,000 lots suitable for residences, business and manufacturing, in and adjacent to the city. Lots are donated to manufacturing enterprises, and liberal inducements offered to actual settlers. SPRING LAKE PARK is owned by this company, and it is being made the most attractive resort in the State. The lake covers an area of seven acres, and is a beautiful sheet of clear spring water. Parties seeking a healthy climate, free from malaria and epidemics, and a prosperous city, are invited to visit Talladega. Address for maps, etc.

The Talladega Land & Improvement Co., **•** **Talladega, Ala.**

ATHENS, East Tennessee

THE COMING

→Iron and Manufacturing City of the South.←

Athens is the county seat of one of the most fertile counties in East Tennessee. The health of the city is unsurpassed, and is **ABSOLUTELY FREE FROM ALL MALARIAL OR EPIDEMIC DISEASES**. The surrounding scenery is very fine. From the main avenue the whole valley of East Tennessee can be seen, from the Cumberland Mountains on the west to the Great Smoky Mountains on the east; some of the tallest peaks east of the Rockies being in full view. **FINE MINERAL SPRINGS** are adjacent and are popular summer resorts. The society of Athens is excellent. A cordial welcome is extended to all law-abiding people locating in the town. The **EDUCATIONAL FACILITIES** are good. Beside public and preparatory schools, Athens is the seat of **THE GRANT MEMORIAL UNIVERSITY**, which has an enrollment of over 300, and whose graduates include some of the most distinguished citizens in the country. Among the industries and institutions of the place in active operation are:

THE ATHENS BUILDING & LOAN ASSOCIATION, \$250,000. **THE ATHENS WOOLEN MILLS, \$100,000.**

THE FIRST NATIONAL BANK, \$50,000.—To be increased at once.

FOUNDRY & MACHINE SHOPS, \$25,000.

FURNITURE WORKS, \$15,000.

FLOURING MILLS, \$20,000, etc.

500 men are now at work on the new railroad from Athens to the

RICHEST IRON FIELDS IN THE SOUTH.

JUST EAST OF THE TOWN.

Only eight miles from Athens are **VEINS OF RED FOSSILIFEROUS ORE 11 FEET THICK**, and 4 to 12 miles beyond are **THE LARGEST DEPOSITS OF BROWN ORES IN THE SOUTH**. The ores of both varieties, in addition to being inexhaustible, are both superior in quality to any ores of either variety at present mined in the South. An assertion that can be sustained. Coke can now be obtained at the lowest prices, and in addition a new railroad is now projected to the Cumberland Coal Fields, only 22 miles distant. These roads will give Athens **UNSURPASSED SHIPPING FACILITIES**. The road under construction will penetrate large deposits of Tennessee Variegated Marble; also an Unopened Timbered Region, and will develop the

Largest Colored Slate Deposits in the United States.

These quarries are now being opened, and are pronounced by experts Absolutely Inexhaustible, and equal in quality to the finest Vermont Colored Slate.

The ATHENS MINING & MANUFACTURING CO.

Have alone just contracted for the erection of over

\$500,000 IN NEW MANUFACTURING ENTERPRISES

At Athens, including a 100 ton Blast Furnace, cost \$200,000; Cotton Mills, cost \$150,000; Furniture Works, employing 200 men, cost \$100,000; Hotel, cost \$60,000; Water Works, Street Car Lines, &c. These improvements have been commenced which, added to other improvements projected, will add

\$1,000,000 OF NEW MANUFACTURING ENTERPRISES TO ATHENS.

The company desire to open correspondence with parties desiring to locate, and will extend liberal inducements in addition to gifts of sites in order to induce New Manufacturing Enterprises to locate in Athens. City property is doubling in value every few months, and at present low prices is beyond question a very fine investment.

The Athens Mining & Manufacturing Company,

R. L. BRIGHT, President.

R. J. FISHER, Secy. and Genl. Manager.

DECATUR, ALA.

Offers outside investors better inducements to locate than any other

• **CITY IN THE SOUTH.** •

• **AS A CITY OF** •

Mammoth MANUFACTURING Enterprises,

She has few equals and no superiors in the South.

There have been located at Decatur in the last four months the following Industries :

THE DECATUR LAND, IMPROVEMENT & FURNACE COMPANY Has 50,000 ACRES of Iron, Coal, Mineral and Timber LANDS
The Louisville & Nashville Railway Car Works. Cost of Buildings, \$300,000.

Charcoal Company's plant, costing \$120,000.
A seventy-ton Charcoal Iron Furnace, costing \$190,000.
A one hundred-ton Blast Iron Furnace, costing \$225,000.
The Decatur Iron Bridge Construction Company; cost of plant, \$100,000.
The American Oak Extract Company's plant, costing \$60,000.
Ivens & Sons Steam Boiler and Engine Works, costing \$100,000.
Morse Cotton Compress plant, costing \$60,000.
Decatur Lumber Company, Saw and Planing Mills, costing \$50,000.
Berthard & Co., Sash, Door and Blind Factory, cost \$15,000.
The Decatur Street Railway Company.
The Telephone Company.
Brush Electric Light Company, cost \$10,000.
The Ironton Wheelbarrow Company, cost \$25,000.
Howland & Co's Water Works System, costing \$200,000.
Bleymeyer Artificial Ice Company, cost \$10,000.
Four Mammoth Brickyards.
Jones, Poley & Co's Lumber Yards.
The Hoosier Mills & Building Company.
The Gate City Sash & Door Company.

Arantz Bro's Mills and Lumber Yards.
Grant & Co's Furniture Factory.
Southern Lumber Company.
H. S. Freeman's Mills and Lumber Yards.
The Alabama Farmer's Friend Fence Machine Company.
The Decatur Artificial Stone Company.
Decatur Chain and Architectural Iron Works, capital \$100,000.
Natural Gas Company, capital \$200,000.
First National Bank, capital \$100,000.
The Exchange Bank of Decatur, capital \$100,000.
Merchants' Insurance Company, capital \$100,000.
Decatur Building Association, capital \$300,000.
Decatur Building Company, capital \$1,000,000.
Buchheit's Bottling Works.
Decatur Printing Company.
Two daily papers, three weekly papers.
Two hotels are building—one \$60,000, one \$300,000; the largest in the South.
Grand Opera House, \$100,000.

* THERE ARE OTHER *

• **Mammoth Enterprises** •

Locating here, and contracts are being made with some of the most extensive industries in the United States.

Decatur is the Healthiest city in Alabama, the death rate among whites for 1886 being only 11 in 1,000.

Decatur Land, Improvement & Furnace Company.

E. C. GORDON, President. H. G. BOND, Vice-Prest. and Gen. Manager. W. E. FOREST, Secretary.

This Company has been pre-eminently successful in promoting the interests of the city of Decatur.

• CORRESPONDENCE SOLICITED WITH PARTIES SEEKING LOCATIONS. •

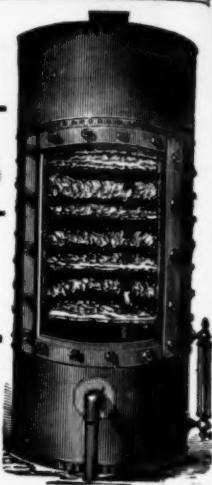
Stilwell's Patent HEATER AND FILTER Combined.

The Only Lime Extracting Heater That Will Prevent Scale in Steam Boilers.

Removing all impurities from the water before it enters the boiler.

Thoroughly Tested. Over 3,000 of Them in Daily Use.

This cut is a facsimile of the appearance of a No. 5 Heater at work on ordinary lime water, when the door was removed after the Heater had been running two weeks. *Illustrated Catalogue Free.*



STILWELL & BIERCE MFG. CO., DAYTON, O.



The JOHN ASHCROFT Patent TRIANGULAR Revolving Steel Grate Bars & Furnace Doors

Eight per cent. in coal saved by the use of these Doors and Steel Bars guaranteed.

These Steel Bars last four times longer than any cast-iron bar ever made.

Sectional View of Steam Boiler, fitted with John Ashcroft Patent Furnace Door and Triangular Revolving Steel Grate Bars.

Fireman cleaning fire by shaking and revolving the bars, which thoroughly frees the furnace from ashes, and prevents the formation of clinkers, without the use of fire tools or opening the furnace door.

RESULT.—Increase of steam and a saving of coal, and no injury to the boiler by cold air impinging on the boiler shell.

By this operation a saving of 8 per cent. is secured.

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Gas and Kerosene Burners and Trimmings.  The Celebrated Leader Burner a Specialty.

ELECTRIC COPPER WIRES. Plain and Covered.

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Special attention given to developing Southern industries, procuring money for promoting Agricultural, Mechanical and Transportation interests, and imparting information to capitalists, as well as all seeking investments in Southern lands.

Northern manufacturers and money lenders will find it to their advantage to confer with us, as well as all persons requiring information as to plants for Cotton Mills, Sugar Mills, Saw and Planing Mills, Foundries, Car Shops, Creameries, Canneries, Tanneries, Brickmaking, etc., etc.

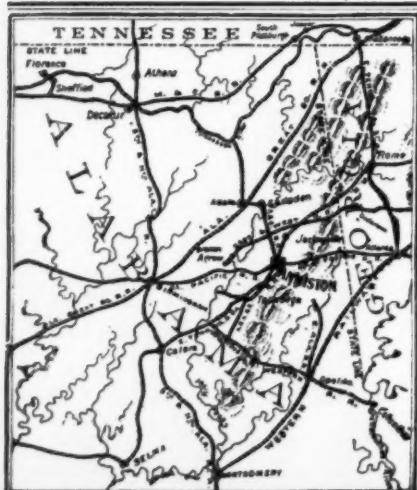
D. L. MITCHEL.

M. B. HILLYARD.

REFERENCES.
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CITY AND MINERAL PROPERTY
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REFERENCES:
First National Bank, Anniston, Ala.
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TRADE NOTES.

MODERN HOUSE HEATING, a handsome pamphlet published for free circulation by the Gorton & Lidgerwood Co., of New York, will prove of value to all who desire to heat residences, churches, schools, &c.

THE Ringen Stove Co., of St. Louis, have issued an attractive catalogue of their "Quick Meal" gasoline stoves. Dealers in such stoves will find this catalogue of much interest. It is beautifully printed.

A PRICE-LIST of their patent improved steel shovels, spades and scoops has been issued by Messrs. Wm. Chisholm & Sons, of Cleveland, Ohio. The productions of this well-known firm cover a wide range of goods in the line of shovels, spades, &c.

DAVID BOYLE, patentee and builder of Boyle ice machine, of Chicago, Ill., writes to the MANUFACTURERS' RECORD: "I am now busy building the following ice-making machines for the South, viz: One 30-ton daily capacity for Knoxville Ice Co., Knoxville, Tenn.; one 45-ton daily capacity for Atlanta City Brewing Co., Atlanta, Ga.; one 15-ton daily capacity for Greenville Ice & Coal Co., Greenville, Miss.; one 5-ton capacity for Kissimmee Ice Factory Co., Kissimmee, Fla. Every one of these machines is bought by parties having my machines in operation successfully for several years past."

MESSRS. E. VAN NOORDEN & CO., of Boston, Mass., report that they are at present engaged in lining the walls of four wood hospital wards in Charleston, S. C., on the inside with $\frac{1}{4}$ -inch glass, set in angle iron frames, held in place with galvanized sheet iron caps; also ceilings arched to a radius of 24 feet, of fine corrugated iron. The wards are 30x12 feet each and are one story high, with double pitch roofs. The idea of using glass is to prevent the absorption of disease germs, and as nothing of this kind has been done before, the completion of the work will be watched with a good deal of interest by the people there.

THE general office of the Hill Clutch Works is located at Cleveland, O., with a general Eastern office at No. 18 Cortlandt street, N. Y. They have recently opened a Western office at 28 South Canal street, Chicago, and a Northwestern office at Minneapolis, Minn., and are having a very satisfactory trade among the Southern States, having just made large shipments of clutches to the Muscogee Manufacturing Co. and the Swift Manufacturing Co., of Columbus, Ga. They have also received an order from the Missouri Mining & Lumber Co., of Lee, Mo., for six large friction clutch pulleys and couplings, ranging in size from 48x17 to 96x21 inches. During the past year they have also received orders from nearly every State in the South and from every branch of trade where machinery is used.

THE Taylor Manufacturing Co., of Chambersburg, Pa., have issued a new catalogue of their high-speed automatic cut-off engines. "This engine," they say, "has many superior features, and the design is peculiar to itself, being the fruit of a careful study of what is required for an automatic engine to successfully meet the demands of recent achievements in the perfection of electric lighting. Daily experiments prove that without perfect running engines and complete steam plants, electric lighting is not profitable nor satisfactory. The Beck engine is especially adapted for electric light service and high speed, but will run as successfully at medium speed, for mill and factory work. Its economical performance is an important factor, and other chief points of excellence are simplicity, smoothness in running, fine workmanship, and durability. The automatic cut-off regulator is entirely new in all its features, and is practically perfect in its regulation. The valve is perfectly balanced, and its proportions are such as to obtain the highest economy in the use of steam."

THE Ingersoll Rock Drill Company, of New York, report that the year 1887 marked a large increase in its business. This company, which began about fifteen years ago in the manufacture of rock drills, has gradually enlarged its field, until now it manufactures and sells complete plants of mining, tunneling and quarrying machinery. Among the important tunnels equipped with Ingersoll machinery are the Wickes, Montana Central Railroad, at Wickes, Montana; the Galena Tunnel, Chicago & Northwestern, Galena, Ill., and the Kansas City Tunnel, Kansas City, Mo., besides numerous plants in small tunnels and railroad cuts, notably those on the Clinch Valley Extension of the Norfolk & Western Railroad, in Virginia, and the Canadian Pacific, in Northern Maine and Canada. Complete equipments of quarrying plants, comprising stone channelling machines, gadders, quarry bars, drills, boilers, derricks, etc., were furnished to many of the large quarrying companies throughout the United States. The export trade of the company has been large, and mining plants, comprising air compressors, drills, etc., were shipped to Venezuela, United States of Colombia, Mexico and other countries.

IT is not often that we have the pleasure of examining a neater or more attractively got up catalogue than the one issued by the Valley Iron Works, of Williamsport, Pa., as an "Introduction of the Valley Automatic Cut-off Engine." The company say it is "over three years since the Valley Iron Works completed the drawings and construction of their first automatic engine. Since that time they have sold and have in operation over three hundred engines. The favor with which these engines are received has prompted the makers to entirely remodel their patterns and cure defects that have been brought out by the closest attention to the performance of their oldest engines, and constant use of the steam engine indicator. They present to the power user an engine that is perfection in its details as well as theory. This is their initial bow to the public with a special catalogue, they preferring to wait until such time as their experience had fully and satisfactorily demonstrated their engine second to none. That time having arrived, the manufacturers will now use every endeavor to push their engine to the front, knowing that they can guarantee it in every particular."

Do you wish to advertise in any trade paper? If so, write to Mr. L. L. Whitlock, of Boston, Mass., for circulars, prices, etc.; he can save you time, trouble and money.

Read what the Page Belting Co., of Concord, N. H., says after a year's experience:

CONCORD, N. H., Dec. 23, 1887.

L. L. WHITLOCK:

Dear Sir—As the year is drawing to a close, and we are about deciding as to newspaper advertising for the year 1888, we write to say that we have found our contract with you to be very satisfactory indeed. We are sure that we have obtained the same amount of advertising, including the care in looking after it and other things incidental to such business, all at a less cost of care and labor than if we had done this work direct; and we are also sure that suggestions made by you as to proper papers in which to accomplish and work out to the best advantage and the location in those papers, etc., etc., has been much better done than it could have been without the assistance of such experience as you possess. You will please understand that we want your services in the same way the coming year. We expect our business will be just about the same as during the year now closing. If this is satisfactory to you, please advise us.

Yours truly, PAGE BELTING CO.

Speed on Southern Railroads.

The Queen & Crescent Route, running trains from Cincinnati to New Orleans and Shreveport, La., and passing through Chattanooga, Birmingham, Tuscaloosa, Meridian, Jackson and Vicksburg, has, with its "Queen & Crescent Limited Express," reduced the time between Cincinnati and New Orleans (827 miles) to twenty-five and a half hours. This train leaves Cincinnati at 7:55 A. M., and arrives at New Orleans at 9:30 next morning.

Literary Notes.

FRANK LESLIE'S SUNDAY MAGAZINE is a remarkably interesting and instructive journal. It is published monthly, edited by Rev. T. DeWitt Talmage, and is fully up to the high standard of what might be expected under the editorship of such an able man as Talmage. The subscription price is only \$2.50 a year.

THE Century's articles on "Ranch Life in the Far West," which will begin in the February number, are not only written, but illustrated also, by experts. Theodore Roosevelt has experienced all he writes about in the "great grazing lands," and Frederic Remington, the artist, has led the life of a cowboy for years on the Western plains. Among Remington's illustrations in the first number are a full-page picture of an attack upon a company of cowboys by the Indians, "A Row in a Cattle Town," "Cowboy Fun," "Pulling a Cow out of the Mud," and another full-page picture of "Bronco Busters Saddling."

A NEW work recently published by John Wiley & Sons, 15 Astor Place, New York, is entitled "The Metallurgy of Silver, Gold and Mercury," and is the first attempt to present a systematic, consecutive, and general view of the different processes for the extraction of these metals. The author, Dr. Thomas Egleston, is a skilled technical writer and investigator, as well as a practical metallurgist, which is sufficient to insure the importance of the work. In the introductory to the first volume the author outlines the methods used in historic times, and traces them in their progress down to a time within a few years, marked by certain scientific discoveries and mechanical inventions, and exhibits these years as revolutionizing the methods of all past time, and indicates the changes a few more years may bring. It is an interesting book, treating on an interesting subject. The first volume on the treatment of silver has been issued in 558 pages, and is well illustrated.

WEARING OF THE GRAY. Comprising Personal Portraits, Scenes and Adventures of the Late War, with Thrilling Narratives of the Daring, Dashed, Dashing Charges, Tollsome Marches, Willing Sacrifices and Patient Sufferings of the "Boys in Gray," interpersed with Stirring Incidents of Life in Camp and Hospital, and many Important Events Hallowed by Associations with the Gallant Dead. By John Esten Cooke, formerly of Gen. Stuart's Staff, and author of "Surry of Eagle's Nest," "Life of Gen. Lee," etc. Illustrated. 600 pages. Octavo, \$2.75. E. B. Treat, 77 Broadway, New York.

This book is of profound interest from beginning to end. The Savannah News well says: "The title page of this book, with all its fullness, gives a very imperfect summary of its contents. These are rich in every quality that invests a book with a fascinating interest to every reader. The facts are startling, the language in which they are narrated fittingly chosen, and the denouement often a surprise. The author was not only an eyewitness to many of the thrilling scenes depicted, but was a participant in several of the most exciting, and on the staff of probably the most daring chief of the Confederate cavalry. As comparatively little has been published about the Southern phases of the great conflicts which our author so vividly describes, and as a new generation has come upon the stage of life since these occurred, this volume will be a welcome addition to the war literature of the days that tried men's souls, and will interest like the pages of a romance while it conveys the facts of actual history. The book is amply and beautifully illustrated, not only with portraits of those whose names are still engraved upon the hearts of thousands, but with views of many battle scenes, and will be read with avidity in the households of South and North alike."

THE American House, Boston, is adding every day to its fame and popularity as one of the best hotels in the East. There is no pretentious display, but everything is of the very best, and a desire to please is apparent in every department.

Important.

When visiting New York city, save baggage express and carriage hire, and stop at the Grand Union Hotel, opposite Grand Central Depot.

600 handsomely furnished rooms at \$1 and upwards per day. European plan. Elevators and all modern convenience.

Restaurants supplied with the best. Horse cars, stages and elevated railroads to all depots. You can live better for less money at the Grand Union Hotel than any other first-class hotel in the city.

THE BEST.—First-class accommodations at Palace Hotel, Cincinnati, \$2 and \$2.50 per day. Elegant rooms, fine table and all conveniences.

THE St. Charles Hotel, at Lowell, Mass., kept by Geo. R. Cushing, is the place for comfortable entertainment. Travelers will do well to keep it in mind.

WESTPHAL'S IMPROVED REVOLVING SCREW, BOLT AND SHOT CASES. ADJUSTABLE FIRE BACKS AND LININGS FOR COOK STOVES. IRON STORM THRESHOLDS. SEND FOR ILLUSTRATED CIRCULARS. SCHENCK'S ADJUSTABLE FIRE BACK CO., 94 MARKET STREET, CHICAGO.

THE KRIESEL ENGINES WITH UPRIGHT OR HORIZONTAL SLEEVES. 2 TO 20 HORSE POWER. ADDRESS A. E. WHITACRE MFG. CO., RICE & WHITACRE, CHICAGO, ILL.

Pennsylvania Agricultural Works, York, Pa. Farquhar's Standard Engines and Saw Mills. Read for Catalogue. Portable, Stationary, Traction and Marine Engines a specialty. Worked on every kind.

Address A. E. FARQUHAR & SON, York, Pa.

—For the Latest Improved—
FAST FEEDING

Planing Mill Machinery,
ADDRESS THE
Preble Machine Works Co.,
CHICAGO, ILL.

DON'T BUY AN ENGINE OR BOILER

Until you have seen our circulars. Engines complete from 5 to 110 horse power, both Vertical and Horizontal, at prices below those of other reputable makers. \$1400 in use. Boilers of every style. Automatic Engines for Electric Lights. Centrifugal Pumping Machinery for Draining or Irrigation. Established 22 years. Perfect satisfaction guaranteed. Address for circulars.

Morris Machine Works,
BALDWINSVILLE, N. Y.

PERFORATED METAL FOR COTTON SEED OIL MILLS, RICE MILLS, MINING SCREENS &c. THE ROBERT AITCHISON PERFORATED METAL CO., 16 Van Buren St. Chicago, Ill.

[CONTINUED FROM PAGE 1134.]

reason knocks in vain at the doors of our understanding.

The national Congress is now confronted with these facts: the income of the government is greater than its expenses, and a considerable hoard has accumulated. The Blair Educational Bill offers the best investment for the accumulated surplus, and the Postal Telegraph challenges the attention of progressive statesmanship. Common sense would suggest that internal taxes be at once removed wholly, if possible. But our people have been taught that the tariff is a fiery untamed quantity, like Lucifer or Apollyon, and must first be dispatched. Our idea of tariff reform is to place sugar, rice and every special product of the South on the free list. Such notions have kept us poor as penury for more than half a century; but our petitions are met when we are given what we ask for. It need, therefore, surprise no one if the present Congress slaughters every Southern industry save only those in which the Northern States have an interest. Tariff Reform is the cry, and we will probably prove our sincerity by committing harakiri.

ARGUMENTUM AND HOMINEM.

Cotton, sugar, rice and certain fruits are produced in the South only. Special advantages of soil and climate above all the world enables cotton to take care of itself. It needs no special protection, because we can produce it more cheaply than any other people. With sugar, rice and Southern fruits, conditions are different. Nine tenths of the sugar consumed in the United States is produced abroad. Over 2,500 million pounds a year are imported. Half-clad and half-slave labor produces it. Import duties on foreign sugars and molasses make nearly one-third of the tariff revenues. Nothing produced by the rich and powerful North yields such a revenue. All it produces or manufactures is hedged by tariff taxes that prevent large imports. The great sums yearly paid for foreign sugar go to enrich the lords of the tropical sugar lands, while the planters of the South, unable to pay living wages even to negro laborers, are compelled to see their estates year after year lapse into decay. By the improvident provisions of the Hawaiian treaty, sugar from the Sandwich Islands, approximating the annual crop of Louisiana, is dumped into this country duty free. The orange groves of Florida are outdone by those of the tropics. If Massachusetts raised oranges, those from abroad would land in the United States with difficulty, and not under a revenue duty of \$1.60 per thousand. If Connecticut or New Jersey produced bananas they would not be imported by shiploads free of duty. If New Hampshire produced lemons or figs, these fruits would not come into our ports without paying four times the present tax. The great bulk of the sugar imported into this country pays a tariff or import tax of \$1.40 per 100 pounds, and molasses about 4 cents per gallon. One of the most highly cherished abstractions of the free trade orators is this: that for every dollar brought into the treasury by tariff taxation, five dollars goes to the protected industry. They aver, too, with great solemnity, that sugar, rice and wool are highly protected. They do not deign to notice oranges and fruits, but complain bitterly of the protection given to pins and tacks. During the last year duties on sugar amounted to \$50,265,538; molasses to \$1,501,384, aggregating \$51,766,922. This, according to their calculations, would put into the pockets of the sugar planters the handsome sum of \$258,834,610—nearly a dollar a pound for every pound of sugar produced in this country. The same mode of figuring would give to the orange growers an annual subsidy of \$4,000,000, and to

the rice planters some \$6,000,000 a year. The wool growers would also, even under the ruinous provisions of the tariff of 1883, come in for a yearly bounty of over \$25,000,000. These examples suggest that our free-trade friends should enter into a short armistice with truth.

Our sugar-producing area is certainly as well adapted to supplying the people of this country with sugar and molasses as is New England to furnish them with cotton and woolen goods. There is hardly a cotton plantation or a sheep ranche in all those States. Alabama, Tennessee and West Virginia might make iron and steel as readily as Pennsylvania. Georgia and the Carolinas might well manufacture cotton goods to the same extent as Massachusetts or Rhode Island. Texas, with its flocks upon a thousand hills, and its fine water-powers in the sheep-growing regions, might well take part in furnishing blankets and woolen goods for the country. In straining their eyes after the *ignis fatuus* of free trade, our representatives have never bethefted themselves of the advantages that might accrue to the South by protecting its special products. On the other hand, Northern legislators have, at all times and under all circumstances, had the interests of their people in view. From these causes their industries have flourished, while ours have languished.

In present schemes for revenue reform, the long-neglected sugar interest will probably be offered up. Upon reflection, it can only be wondered that the axe has not fallen sooner. The unthoughtful citizen of the warm and sunny regions who takes his whisky and his coffee straight and sweetens his pie with sorghum molasses, will, no doubt, be delighted when sugar is placed upon the free list; but the considerate patriot, who lives above the sugar belt and makes a liberal use of it, will regret the sacrifice of an American industry.

Our Southern farmers undoubtably take pride in their grievances. They seem to realize that they are poorly fed and clad, hard worked and under paid. Thousands of them cannot spare the labor of their children so as to permit them to attend a free school three months in the year. They do not know, or seem to wish to know, that if their labor was protected as others they would thrive as others. They are indifferent to the fact that if the sugar supply of the United States was produced in the South, thousands of farms and thousands of hands now engaged in raising cotton at a loss, would withdraw from that industry, and engage in raising sugar; that cotton production would be thereby lessened, and prices improved in a corresponding ratio. They do not seem to care to know that if one-half the cotton raised by them was manufactured in the South, 300,000 hands would find employment; that many of these would be taken from the cotton fields, and the rest would be women and children who never earned wages before. In a few localities they are beginning to learn better. In the main, however, they prefer to believe demagogues who tell them that the amount of duty imposed upon any given article is an integral part of the price of such article, if manufactured and sold in this country. Mr. Eaton, of Connecticut, who has already been quoted, shows the want of truth in such statements by relating the following story: "There was a certain professor in my country, a theorist of the first water, a man who does not know any more about the practical tariff than I know about the Hebrew that he is well acquainted with. This professor came up into a large manufacturing village in my county to make a theoretical speech, such a one as my friend from Ohio (Mr. Hurd) delights in. There was a farmer standing by a post in the lecture room and the professor thought he might be a good subject to operate upon;

so he said to him: 'My friend, you are a farmer?' 'Yes.' 'You live here?' 'Yes.' 'Do you know these manufacturers in this village are robbing you?' 'Why, no I do not know it. How can they rob me? I came here ten years ago with \$500; I bought a farm, running in debt \$2,500 for my farm and stock. I went to work raising truck for this village. I paid my debt and have got money in the savings bank, and do not owe any man a dollar. How have they ruined me?' The professor said: 'Well, it appears you have been a hard workingman and have lived it through. But you pay six cents a yard duty for the very cloth your shirt is made of.' 'Well, professor,' replied the farmer, 'you may think so, but you cannot prove it by your algebra or your logarithms; you cannot prove it unless by *Æsop's fables*; for I did not give but five cents a yard for the cloth.'

This is the kind of robbery the farmers of the South have been fighting so long and so hard to ward off. It is from like calamities that their politicians would save them.

It is a source of pungent grief to some men that certain industries are so flagrantly over-protected. There is a protective duty on salt, but no man has been heard of who is suffering from a scant or dear supply. Some groan over the fact that Collins' axes, protected by a duty of 50 per cent., are exported and sold in England and Scotland. It is peculiarly galling to the man whose wife cuts wood for the family, but woodmen, who use the axes, wonder at their excellence and cheapness.

The South might well produce all the sugar, all the rice, all the semi-tropical fruits used in the United States. With a duty upon these articles equal to that which stimulated the leading Northern industries into growth, a new life would be infused into our people. A brief period of high prices would follow, but new plantations would be opened by thousands. Old ones would bound from dilapidation into repair. Encroaching alligators would be remanded to bayou and slough. Abandoned fields would be reclaimed, and fresh inroads made upon virgin forests. New levees would rise up and dispute the right of the rivers to annual overflow. The pine barrens of our great semi-tropic would be brought into till, and sun-burnt inhabitants of those regions would emerge from the torpor of nonentity into the activities of citizenship. The heart of a still newer South would beat high and grand. The old master would rise from apathy and his circulation revive as under a wholesome tonic. Estates that are now the scorn of the *tax-ga-here*, would become the delight of the speculator. Congo denizens of deserted districts, who, under long years of discouragement have learned to look more to rod and gun than to mother earth, would joyfully renew acquaintance with shovel and hoe. The rice planter, routed from his estate by mortgage and lagoon, would again give battle to the genii of the swamp, and rescue his old possessions from their dominion. Sugar house and rice mill, with their long chimneys and the rumble of their machinery, would proclaim the rehabilitation of South Carolina and Louisiana. Thousands of strangers would seek homes with us. Sturdy yeomen from the Northwest, bustling traders from the great lakes, and alert New Englanders would meet in the far South. Full pockets and brainy heads would push the whole region forward in a career of prosperity. Improved methods of culture and of manufacture would be developed. For the mind of the American, when turned upon his machine, always improves it, and in the end endows it with all but reason. Nor is this all. The sorghum canes, charged as they are with saccharine ingredients, would chal-

lenge the attention of the chemist. New discoveries, reducing their rich juice to subjection, would double the sugar-producing area of the country. The sugar beet, in the early days of its culture, presented greater difficulties. At the same time it was comparatively poor in saccharine elements; yet prohibitory tariffs, wars and blockades have so encouraged this industry that it enters into competition with tropical sugar and largely supplies the demands of Continental Europe.

The increase of the sugar area naturally attendant upon a protective policy in the South would cause a large withdrawal of lands and hands from the cultivation of cotton, as before shown. Florida would become an immense fruit farm, the whole Gulf coast awaken from its long reign of drowsy torpor and become quick with energy. The change that has taken place in Florida within a few years past justifies all these conclusions. Our farmers have the numbers and have the political strength to compel as much protection for themselves as is given to manufacturers of any class. Why do they not demand it? Does it not seem strange that Southern cotton should be sent on foreign journeys to find mills to work it up when so much of the crop is raised within the sound of waterfalls? Is it not odd that we, who raise so many sheep and use so few woolens, should go into spasms over the duties on wool and woolen goods? Can any sane man explain why it is, that while the Northern States are the principal consumers of sugar and rice, we, the only producers of these articles in the United States, are heart-broken because they are not placed on the free list? In like manner, who can account for our wish for free trade in semi-tropical fruits when the North is the principal consumer and we the producers of them? The gravamen of our complaint against protection, when relieved of the sophisms of free traders, is that it enables one class to plunder another. The classes thus privileged are almost wholly in the Northern and Eastern States, and the South, by her own choice, is the principal victim. If the advantages are not reciprocal it is because we have made no effort to have them so. Enmity to protection has solely plagued our own people. In striking at the "factory lords" of New England and at the "iron barons" of Pennsylvania, we have never failed to stab the sugar interests of Louisiana. A great majority of our Congressmen would willingly smite Birmingham and Chattanooga to reach Pittsburgh, or jeopardize the factory towns of Georgia and the Carolinas in order that the blow might be felt in Fall River and Lowell.

If, as it is insisted, protection has conferred undue privileges upon the Northern States, why do we not fall into line and procure high duties on all our products? Northern people use, perhaps, four fifths of all the sugar, molasses, rice, wool, iron and foreign fruits consumed in this country. We might thus legally make reprisals upon them. With a duty of three to five cents a pound on imported sugar they would pay four dollars where we pay one. This one dollar would be spent by our own citizens amongst themselves, whilst the other four dollars would for a time be drawn from the North to the South. So of all our special crops. Such a protection would cause the impoverished South to forget her woes and attire herself in the robes of prosperity, while increased production would soon give a greater and a cheaper supply than ever. We would then be "solid" in a sense that would command respect rather than reproach. No one doubts that these benefits could be secured, nor that the Northern States would readily concur in these measures, if our representatives could persuade themselves to forbear tinkering with the tariff, and to permit the industries of the country to remain

undisturbed by meddlesome and mischievous interference.

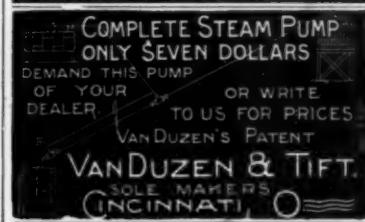
Now, those Northern people are in the majority, and, with the help gradually coming in from Southern districts that have begun to prosper under protection, the system is going to be maintained for years to come. The protectionist has built his house. It keeps him comfortable. He suggests to us that we build one like it and enjoy similar comforts. We dislike the laws which permitted him to build such a house, and want to tear it down. This he prevents us from doing. We then take revenge upon him by standing out, shivering in rain and cold, shouting to him continually what a bad man he is for building under such wicked laws. The farce is finished by assuring him with great zeal that we will ever refuse to join forces and join interests with him, but, like Samson, the blind giant, we will one day lay hold of the pillars of the structure, bow ourselves with all our strength and bring it down in ruins upon his head. Nor do we busy ourselves about what the consequences were to Samson.

No one denies that there are inequalities, and perhaps excesses, in some duties now imposed, but this is far more easily charged than shown. Painstaking committees appointed by Congress, after laborious investigations, find little to justify the belief. Men conversant with the different branches of industry show that the protection given seldom covers more than the differences between foreign and American labor. The enormous dividends supposed to be earned by manufacturing concerns exist more in fancy than in fact. If the profits were so great as is commonly believed, it is strange that such vast amounts of capital are lying idle in the Northern States for want of an investment that will pay six per cent. When the Morrill tariff was first laid the profits were undoubtedly great, but competition has grown up and cut them down, so that few manufacturers now receive more than a fair profit on the money, labor and skill employed. At this time few new enterprises are undertaken except in the South and West. A proper attitude of our people on this great industrial question would cause these investments to multiply in the near future and dispense the blessings of employment and increased wealth amongst our people. The mere fact that more taxes are collected than are necessary should not cause us to lose our judgment. Revenue reform should be treated in a practical way, just as any other matter of business. It has been shown that the internal revenues should first be abolished. They oppress industry and foster nothing that is desirable.

The day of free trade in the South is past. It went out with the old system of labor. Old-time prejudices must soon follow. Thousands of young men, born since the war, will vote at the next election. Let it be hoped that they will not walk blindly into the leading-strings of the politicians, and that they will not yield readily to the artifices of demagogues. It is a painful truth that positions of public trust are too often but dividends declared upon the capitalized prejudices and ignorance of our people. The politicians, being both stockholders and directors, are naturally interested in the perpetuation of their investment. But intolerance of free thought and free speech in politics is yielding in a degree to the lessons of experience and common sense. Factory, furnace and mill are sounding the glad notes of a new gospel in the South. Prosperity is a splendid converting power. Dollars are eloquent orators, and appeal to prejudice as nothing else can. Every mill is a missionary and every furnace a pillar of fire by night. Many and many a Rip Van Winkle is rousing up from his long, long sleep. Hasten the day when the men who lost in '65 shall, with their children and grandchildren, become participants in the glorious prosperity that now lies just in sight, just up the hill, awaiting the triumphant march of the Industrial South.

Business Opportunity.

A well established and successful Planing Mill and Lumber business. Centrally located. Profits \$3,500. Investment \$7,500. Established five years. Best of reasons given for selling. Apply immediately to G. S. MAY, Atlanta, Ga.



Acme Kerosene Engine.



The CASTLE Engine.



This can be fastened to any roof without injuring it and without loss of time. It is self-adjusting, has double support, and impossible to break or slip. It will last a lifetime and is just the thing for carpenters and builders. Send for circulars to

R. B. THOMAS,
90 Chambers St., New York.

BERNHARD DIETZ, Manufacturer of Printers' Rollers, and Roller Composition. Factory, cor. Light and Mercer streets, Baltimore. Prices: Composition (bulk) 30 cents per lb.; for Casting, also, 30 cents per lb. Orders by Mail promptly attended to.

Steam Engines, Boilers, Steam Pumps,

Eclipse Fan Blowers, Tire Benders, manufactured; all guaranteed. Also, the LANDIS PATENT STEAM RADIATOR supplied. Address The LANCASTER STEAM PUMP & MACHINE WORKS, Lancaster, Pa.

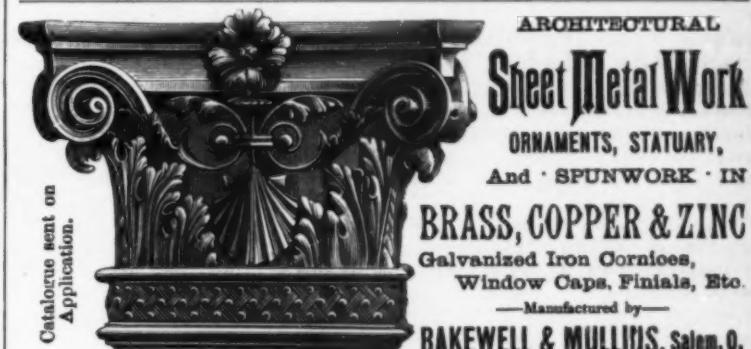
It will pay you to write to WILLIAMS ENGINE CO., 447 North St., Baltimore, Md., for AUTOMATIC ENGINES, For any duty. Electric Light Engines a specialty. Quality high. Prices moderate. Address WILLIAMS ENGINE CO., 447 North Street, Baltimore, Md.

EDOUARD SIDEL, ARCHITECT,

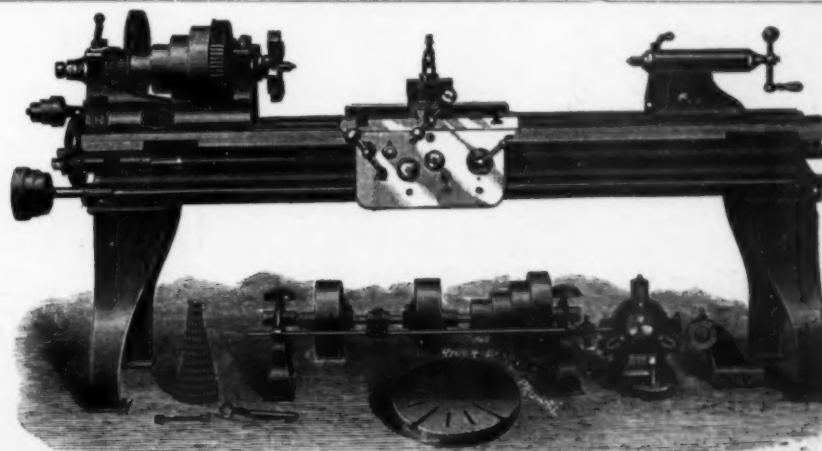
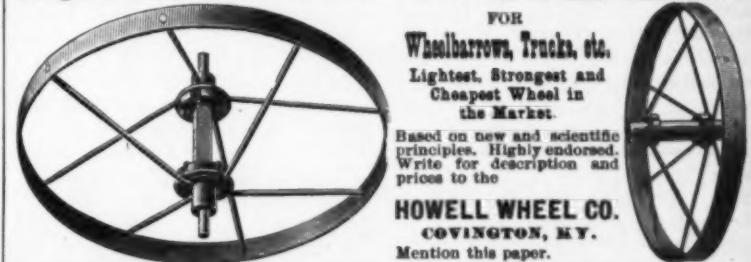
Birmingham, Ala.

Architect of the CALDWELL HOTEL,

The MORRIS BUILDING, etc., etc.



THE HOWELL PATENT Suspension Iron and Steel



—NICHOLSON & WATERMAN, Providence, R. I.—

E. W. BLISS CO.

Plymouth, Pearl, John and Adams Sts.

OFFICE: 17 Adams Street.

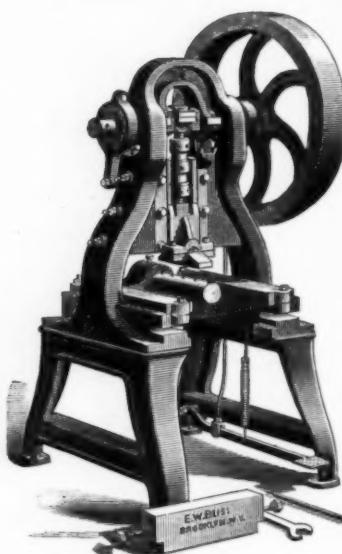
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Presses, DIES AND

Special Machinery,

FOR

Sheet Metal Workers.



Cam Toggle and Drawing Fresses, Power Presses, Foot Presses, Automatic Drop Presses for Forging and Stamping, Double Seaming Machines for round, square and oval work, Circular Shears, hand and power; Squaring Shears, foot and power; Canning Machinery, Dies of every description, Tools for working Sheet Metals, Petroleum Can Machinery, Special Machinery. Send for Circulars.

NIAGARA STAMPING & TOOL CO. Cor. Superior & Randall Sts.
MANUFACTURERS OF BUFFALO, N. Y.
TINNERS' MACHINES AND TOOLS, FOR WORKING
SQUARING SHEARS, CIRCLE SHEARS,
PRESSES, DIES, ETC.



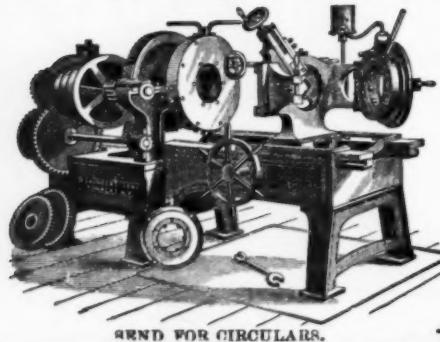
Tinners and others, we offer you the best Snips ever made. We make five sizes:

No.	10	9	8	7	6½	No.	10	9	8	7	6½	
Cut....	2½	3	3½	4	4½	in.	Price....	\$1.40	\$1.50	\$2.00	\$2.50	\$3.00
Weight....	1	1½	2	3	4	lbs.	Postage....	18	25	36	48	70 cts.

We cannot send the Snips C. O. D.; it would cost 25 cents for return charges. Send your money by Postal Order, Postal Note, Money Order, or Postage Stamps.

Send for our complete illustrated Catalogue and Price List, and mention this paper.

D. SAUNDERS' SONS



MANUFACTURERS OF
Pipe Cutting and
Threading Machines,
For Pipe Mill and Steam
Fitters' Use.

Tapping Machines
For Steam Fitting. Also,
STEAM AND GAS FITTERS
HAND TOOLS,
Atherton Street.
Send for Catalogue B.

TONKERS, N. Y.

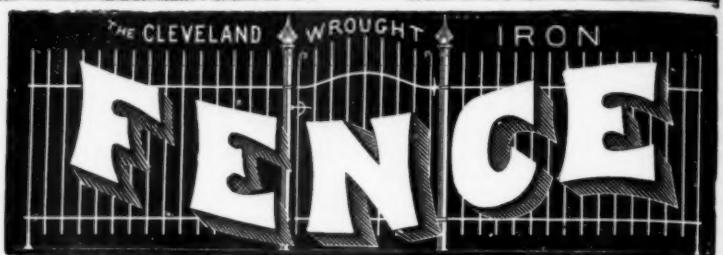
Riveting Forges for Boiler Makers.



The Riveting Forges are made especially for boiler makers, bridge builders and miners, and where forges are required to be carried from place to place or left exposed to the weather. Their construction is simple, and the bellows cannot be injured in the least by their being exposed to the weather; the blast is continuous, like unto a fan or blower, and all have a positive blast. For Bellows, Stationary and Portable Forges Tuyers, Blacksmiths' Tools,

WRITE

The T. H. Bullock Bellows & Forge Co. CLEVELAND,
Ohio.



FENCING AND RAILINGS,
STABLE FITTINGS,
STATION HOUSE CAGES,
CRESTINGS AND TERMINALS.
Correspondence solicited.

LAWN SEATS, VANES,
JAIL AND STRUCTURAL IRON WORK.
Van Dorn Iron Works,
Cleveland, Ohio.



Horse and Mule Jewelry,

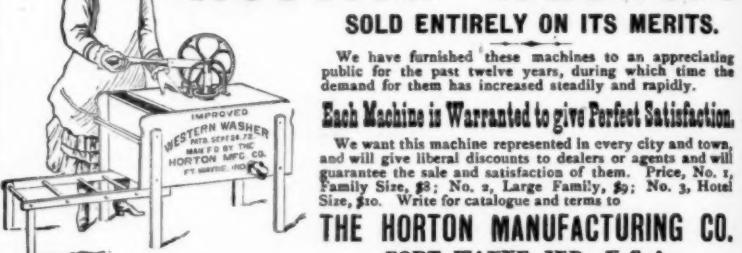
Consisting of COVERT'S PATENT SNAPS,
Chain and Web Goods.

These goods have become standard with the trade, and are sold by all the leading Jobbers in General and Saddlery Hardware in the United States at manufacturers' prices.

Covert Manufacturing Co. West Troy, N.Y.

"The Old and Only Reliable." LATEST IMPROVED FORT WAYNE

Western Washer.



SOLD ENTIRELY ON ITS MERITS.

We have furnished these machines to an appreciating public for the past twelve years, during which time the demand for them has increased steadily and rapidly.

Each Machine is Warranted to give Perfect Satisfaction.

We want this machine represented in every city and town, and will give liberal discounts to dealers or agents and will guarantee the sale and satisfaction of them. Price, No. 1, Family Size, \$3; No. 2, Large Family, \$3; No. 3, Hotel Size, \$10. Write for catalogue and terms to

THE HORTON MANUFACTURING CO.
FORT WAYNE, IND., U. S. A.

THE IDEAL

The best made
Mortar Wheelbarrow
that was ever known.



The only one in fact where every part is fully braced and bolted. Cheap.

We manufacture all kinds of Wheelbarrows, from the cheapest to the best in the world. Look-out for something new for 1888.

Bryan Manufacturing Co., Bryan, Ohio.



CHICAGO CAR MOVER.

With it One Man Can Move a Loaded Car.
WEIGHT, INCLUDING HANDLE, 15 lbs.

Guaranteed not to break or set out of order.
Sent on 30 days' trial. If not satisfactory may be returned at my expense.

Price: Single Movers \$6; per Pair \$10.

Address
J. H. BANNON, Manufact'r,
122 W. Madison St., Chicago, Ill.

THE MARKETS.

OFFICE MANUFACTURERS' RECORD,
BALTIMORE, Jan. 25, 1888.

Our reports from the South indicate a very prosperous condition of business, and in manufacturing interests generally profits are good. The greatest activity in any single line just at present is in cotton manufactures, where, stimulated by the heavy profits of the past year or so, enlargements of old mills and building of new mills are attracting unusual attention. In trade circles prospects are good for heavy mercantile business.

Manufactured iron shows no change, and we quote as before, viz:

Ref. Bar Iron, 1 to 6 $\frac{1}{2}$ to 1.....	2.10@2.40c
" " 1 to 4 $\frac{1}{2}$ to 1.....	2.10@2.40c
" " 1 to 2, round and square.....	2.10@2.40c
Hoop Iron, 1 $\frac{1}{2}$ wide and upward.....	2.50@3 c
Band Iron, from 1 $\frac{1}{2}$ to 6 in. wide.....	2.40@2 $\frac{1}{2}$ c
Horseshoe Iron.....	3@3 $\frac{1}{2}$ c
Norway Nail Rods.....	4@5 $\frac{1}{2}$ c
Black Diamond Cast Steel.....	3@9 c
Machinery Steel.....	3@4 $\frac{1}{2}$ c
Spring Steel.....	3@4 c
Common Horse Nails.....	2@9 c
Railroad Spikes, 5 $\frac{1}{2}$ x9-16.....	2 $\frac{1}{2}$ @3 c
Steel Boiler Plate.....	2 $\frac{1}{2}$ @4 c
Iron Boiler Plate.....	2 $\frac{1}{2}$ @4 c
Boiler Tubes.....	50¢ off list

The report of the American Iron & Steel Association shows that while the production of pig iron for 1887 reached the enormous aggregate of 7,187,206 tons, against 6,365,328 tons in 1886, an increase of 820,000 tons, the stock on hand at the end of the year was but 337,617 tons, or an increase of only 85,000 tons over stocks of December 31, 1886, and this, too, notwithstanding an increase of over 100,000 tons in the foreign imports last year. Compared with December 31, 1885, the stocks of pig iron at the end of 1887 show a decrease of 79,000 tons, and with December 31, 1884, a decrease of 256,000 tons. Of charcoal iron the stocks are the smallest for many years, being only 95,532 tons, against 131,567 tons December 31, 1886, and 232,352 tons December 31, 1885. For several years the production of charcoal iron has failed to expand as rapidly as the consumption, and we have now reached a point where stocks are extremely small.

The Reading strike is causing much trouble to many Pennsylvania furnaces, resulting in reduced output, as some furnaces have gone out of blast and some have banked. The market continues about the same. Steel rails are still held at \$32@33, while scrap iron and old rails are rather stiffer.

Baltimore Charcoal Wheel Iron (all Baltimore ore).....	3.00@3.50
Virginia C. B. Charcoal Wheel Iron.....	2.70@3.20
Authentic, No. 1.....	2.00@2.20
" ".....	1.80@2.00
" 3.....	1.60@1.80
" Mottled and White.....	1.40@1.50
Old Rails.....	2.20@2.30
Old Steel Rails.....	2.20@2.30
No. 1 Wrought Scrap.....	2.20@2.50
Old Car Wheels.....	1.80@1.90

HARDWARE.

Orders are coming in freely, and as the representatives of all the factories and leading jobbers are now on the road, the volume of trade will necessarily be large and steadily increase during the early spring months. There is great complaint from some quarters as to the delays in having orders filled, many orders taken in October and November for immediate delivery not yet having been shipped. This proves an oft-asserted state of affairs, viz: that factories have not been carrying surplus stocks, and that but slight advances in the cost of raw material would occasion larger advances in manufactured products.

Nails are still quoted at \$2.10@2.25.

An attractive little pamphlet, illustrating double acting spring butts, double acting blank butts, single acting mortise spring butts, storm door spring hinges, tilting spring chair iron and many other kindred things, has been issued by the Chicago Spring Butt Co., of Chicago, Ill., manufacturers of these goods.

Philadelphia Iron Market.

PHILADELPHIA, Jan. 24, 1888.

The situation in the Eastern Pennsylvania iron trade is not materially changed from

that of a week ago. Two sets of opinions prevail regarding the possible course of the strike and the probable course of pig iron during the next two months. Those who think iron is likely to become scarcer and dearer have been in the market and have made considerable purchases ranging from one thousand ton lots down, but there are others who think that the strike will soon terminate and furnaces start up, and that iron will recede to its former position where in the few cases it has advanced. A number of inquiries are in the market to day, which look very much as though the majority were of the opinion that it would be better to buy as soon as possible. One thing that will help to the buying up of all available stocks of pig iron, and all supplies that can be furnished for a month or six weeks, is the letter of Mr. Corbin, just published, in regard to the strike. He shows a bold front and says fight. This means, of course, that more furnaces will go out of blast and that prices will advance. It is rather strange to note the advancing tendency in pig iron on one hand, and the declining tendency of bar iron on the other. The card rate will be made 2 cents instead of 2.20 from the first Monday of February. Pig iron quotations to day are given at \$17 to \$17.50 for forge, \$19 for No. 2, and \$21 for No. 1. After all is said, very little iron has been sold above these figures. Consumers say they will be obliged to shut down if they have to pay any more. Furnace makers say they will have to blow out if they are obliged to pay any more. Quite a number have done so, and it is likely they will be followed by others. There is a rumor in the market concerning what may be done, but the pith of the whole matter is that furnace interests want to hold out, believing that the strike cannot last a very long time. The consumption of bar, plate, tank and sheet iron is very heavy in all consuming establishments. The locomotive works still continue to be heavy buyers, as has been so often noticed. A great deal of elevated railroad work is also projected, and the undertone of the market seems to lie in the direction of advancing prices for these kinds of material on account of the heavy prospective demand. The weakness that was shown in some kinds of iron two weeks ago has disappeared. Some parties regard it as a mistake for the bar iron men to reduce the card. Sales have been made at 2 cents and under for some time past, and they object to paying wages on a 2.20 basis. So far as this is concerned, they are right. Skelp iron has been sold at 1.90, and it seems impossible just now to get any more; small lots of plates 2.20; angles 2.25 to 2.35. Beams and channels are still held at 3.30, though we hear it intimated that negotiations pending for a few thousand tons will likely go at a little less, although the above is combination rate. Several very heavy iron and steel transactions, involving \$200,000 or \$300,000, are in sight. Steel rails are still dull at \$32 to \$33. The Joliet and North Chicago mills start up to-day. The Troy mills are still out, and will stay out. The production is at present equal to the demand. Old rails are \$22 to \$22.50. Scrap is scarce.

Cincinnati Iron Market Report.

Specially reported by ROGERS, BROWN & CO., Pig Iron Commission.

CINCINNATI, January 23, 1888.

On the whole it has been a quiet week, so far as general trade is concerned, but a few large buyers have been availing themselves of present market conditions, and placing large orders for deliveries through the year. The result is, therefore, a handsome addition to the order books of some of the sellers. It is a long time since a more determined effort to break down prices has been made by Western buyers, and the air has been full of rumors of unusual concessions, few of which have materialized on in-

CHAMPION BALING PRESSES.

Bale one to two ton an hour. Load 10 doors and beast.

Continual Send for Circulars.

Address, Famous Manufact'g Co., Quincy, Ill.

AUTOMATIC CUT OFF ENGINES

Embodying a new system of Absolute Regulation of speed and boiler pressure. The most perfect governing ever obtained. Send for circulars. BALL ENGINE CO., ERIE, PA.

FOR SALE.

1. 36-in. 1 Beater Breaker Lapper. English.
2. 36-in. 1 Beater Finisher Evener. English.
3. 36-in. 3 Beater Kitson, with prepairo.
4. 36-in. 3 Beater, Whiting's.
5. 36-in. 2 Beater, Whiting's.
6. 30-in. 2 & 3 Beater, Whiting's.
7. 30-in. Weiman Stripper, Whiting's Cards.
8. 30-in. Weiman Stripper, Saco Water Power.
9. 30-in. Weiman Stripper, Whiting's.

All this machinery is first-class. For further particulars apply to

I. GODFREY & CO.
PROVIDENCE, R. I.

The STANDARD TOOL CO.

—Cleveland, Ohio,—

MANUFACTURERS OF
INCREASE TWIST DRILLS, Etc.,
TAPER SHANK DRILLS,

Straight Shank Drills,

MACHINE BIT DRILLS,

Bit Stock Drills,

SOCKETS,

TWIST DRILL GRINDING MACHINE

New York Office, 33 Chambers St.



OUR BELTING

is tanned on the surfaces only; the

INTERIOR is RAW HIDE.

Send for Our Valuable Book for Engineers and Belt Users. Fred.

Agents in all Cities. Send for Trial Belt.

Address SHULTZ BELTING CO., St. Louis, Mo.

Wm. Chisholm & Sons

MANUFACTURERS OF

SOLID CAST STEEL

Shovels, Spades,

SCOOPS,

AND COAL SHOVELS

Cleveland, Ohio.

These goods are the acknowledged standard wherever there is hard work to be done, and are recommended for RAILROAD, MINING, FURNACE and CONTRACTORS' USE IN GENERAL.

Send for Catalogue.

vestigation. But the united action of consumers in alternately "hammering" and neglecting the market has had the effect to carry the average level of prices still lower. The Southern sellers that were recently weak have mainly filled up with orders and are not now off-ring. Hardly ever in their history were the Southern furnaces so heavily sold. Almost any of them could keep their yards bare for two months without another order, and some could do so until mid-summer. We quote for cash f. o. b. Cincinnati:

HOT-BLAST FOUNDRY.

Ohio and Southern Strong Coke No. 1...	\$20 00@50
" " " No. 2...	18 00@10 50
" " " No. 3...	18 00@15 50
Ohio Soft Stonecoal, No. 1...	18 00@50
Ohio Soft Stonecoal, No. 2...	18 00@10 50
Mahoning and Shenango Valley Coke, No. 1...	20 00@20
Hanging Rock Charcoal No. 1...	22 00@24 00
" " " No. 2...	22 00@23 00
Tennessee & Alabama Charcoal No. 1...	21 00@21 50
" " " No. 2...	19 50@20 50

FORCE.

Strong Neutral Coke...	\$17 00@17 50
Mottled " "	15 50@16 50
Cold Shortnings...	16 00@17 00

CAR WHEEL AND MALLEABLE.

Southern Car-Wheel Iron...	\$2 00@24 00
Hanging Rock Cold Blast, No. 1...	\$2 00@23 50
Hanging Rock Cold Blast, No. 2...	—@—

Lake Superior Malleable...	\$2 50@23 50
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Louisville Iron Market.

Specially reported by GRO. H. HULL & CO., Commission Merchants for the sale of Hot and Cold Blast Pig Iron.

LOUISVILLE, KY., Jan. 23, 1888.

There has been no change in the market save that sellers of iron are asking a shade more money. Buyers, however, are not responding to their views save for small lots. The subject of the tariff is cutting some figure, as buyers wish to know the action of Congress before making large purchases. Old wheels have sold at \$19.75 and old rails at \$22 cash cars Louisville. Buying from cities tributary to Louisville has been fairly active. We quote:

PIR IRON.

Southern Coke, No. 1 Foundry...	\$18 50@50
" " " No. 2...	18 00@19 50
" " " No. 3...	17 00@19 50
Hanging Rock Coke, No. 1 Foundry...	19 50@50
" Charcoal, No. 1 Foundry...	22 00@44 00
Southern Charcoal, No. 1 Foundry...	20 00@44 00
Silver Gray, different grades...	16 00@18 00
Southern Coke, No. 1 Mill, Neutral...	16 00@17 50
" " " " Cold Short...	15 75@16 75
Southern Charcoal, No. 1 Mill...	15 75@16 75
White and Mottled, different grades...	14 00@16 00
Southern Car Wheel standard brands...	24 00@25 00
" " " other brands...	22 00@23 00
Hanging Rock Cold Blast...	24 00@25 00
" " " Warm..."	20 00@20 00

Chicago Iron Market.

Specially reported by ROGERS, BROWN & CO. W. BACKMAN, Resident Agent.

CHICAGO, Jan. 23, 1888.

This market is still dull, although some round orders for Lake Superior charcoal iron are reported at slightly better figures. There is a steady retail trade for car-loads of Ohio irons particularly, to keep up the mixtures in local and Northwestern foundries, but the feeling with most buyers is that the time has not yet come to make their larger purchases. Meantime furnaces are complaining of prices, and demonstrating that any further decline must cause their stoppage. It seems impossible at present to further reduce cost, and with many furnaces present prices barely return cost. Sellers quite as much as buyers are willing to wait

a little and see what turn matters will take. We quote for cash f. o. b. cars Chicago:

CORN AND STONE COAL FOUNDRY.

Ohio (Hanging Rock) Softeners No. 1...	\$1 50@50
" Blackband "	1 50@50
" Jackson county "	1 50@50
" Lake ore and cinder "	1 50@50
Southern Coke, No. 1...	1 50@50
" No. 2...	1 50@50
" No. 3...	1 50@50

CHARCOAL FOUNDRY.

Lake Superior...	\$1 50@50
Southern...	1 50@50
Hanging Rock...	1 50@50

CAR WHEEL AND MALLEABLE.

Lake Superior...	\$1 50@50
Standard Southern...	1 50@50
Hanging Rock, cold blast...	1 50@50

OLD MATERIALS.

Old Rail, American...	\$3 00@13 50
Old Wheel...	30 00@21 50

St. Louis Iron Market.

Specialy reported by ROGERS, BROWN & CO., Gay Building, 304 N. 3rd street, St. Louis. W. H. SHIELDS, Manager.

ST. LOUIS, Jan. 23, 1888.

A rather singular and irregular contest has been going on the past week over some good sized orders that were in the market to be placed. A number of buyers claim to have been offered a Southern coke No. 2 foundry at \$18.25 cash, and sales were reported on this basis. Investigation, however, shows that no such orders were placed, and the furnace company in question denies having offered any No. 2 foundry at any price. The alleged quotations, however, have been used vigorously on the leading companies, who are holding No. 2 foundry firm at \$19 cash St. Louis. The orders referred to are not yet placed, and the situation is a sort of stand off. There is unquestionably a stronger disposition to buy, and with some large consumers a necessity exists to place orders soon. The furnaces are firmer than a week ago, many of them having booked large orders from other markets. The next week or two is likely to develop considerable business. We quote for cash f. o. b. St. Louis:

CHARCOAL FOUNDRY.

Missouri...	\$20 00@50
Southern...	20 00@50

COAL AND COKE FOUNDRY.

Southern...	19 00@19 50
Ohio Softeners...	21 00@23 00

MILL IRON.

Southern...	17 00@18 00
CAR-WHEEL AND MALLEABLE IRON.	

Southern...	21 00@24 00
Lake Superior...	22 00@23 50

Conceivable Coke, East St. Louis...

Hanging Rock Cold Blast.

" " " Warm..."

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MANUFACTURERS' RECORD.

SCREW DRIVERS.
 Douglas Mfg. Co. dis 50¢
 Dission's. dis 45¢
 Cowles Mfg. Co. dis 50¢
 Stanley Rule & Level Co. s. Var. Hdls. dis 60¢
 Stanley Rule & Level Co.'s Black Hdls. dis 50¢
 Ratchet. dis 33¢
 Clark's Patent. dis 55¢
 Shepardson. dis 55¢

SPONGE TRIMMERS.
 Bonney's. dis 50¢
 Stearns' dis 50¢
 Ives' No. 1, \$15; No. 2, \$18; No. 3, \$25; No. 4, \$35
 Douglass' dis 50¢

SILVER PLATED WARE.
 Wm. Rogers Manf. Co. dis 50¢
 Holmes, Booth & Hayden. dis 50¢
 Wallace's Steel Silver Plate. dis 33¢
 Rogers Bros. 14¢. dis 50¢
 C. Rogers & Bro. dis 50¢

SCREWS.

Standard new list, Feb. 15.

Flat Head Bright. 70¢
 Round Head Blued. 65¢
 Round Head Bright. 65¢
 Flat Head Brass. 65¢
 Round Head Brass. 65¢
 Flat Head Blued (add 5¢ to net). 70¢
 Brass and Silver Capped. 40¢
 Japanned Flat Head. 65¢
 Coach, Patent Gimlet Point. 65¢
 Coach, Common or Lag. 65¢
 Bed. 70¢
 Machine, Flat Head, Iron. 55¢
 Machine, Round Head, Iron. 50¢
 Bench, Iron. 55¢
 Bench, Wood, Beach. dis 50¢
 Bench, Wood, Hickory. 55¢
 Hand, Wood. 55¢
 Hand Rail, Sargent's. 60¢
 Hand Rail, Humason, Beckley & Co.'s. 40¢
 Hand Rail, Am. Screw Co., list Jan. 1, '88. dis 50¢
 Jack (Wilson's). 45¢

SCREEN FRAMES AND FIXTURES.
 Standard Window Screens. No. 1, \$10; 2, \$15;
 " " Door. No. 5, \$15; No. 6, \$20; No. 7, \$25;
 " " Window Corner Irons. No. 3, \$15; No. 4, \$20;
 " " Door. No. 6, \$25

" " Door Latches, \$10; \$15, \$20; \$25, \$30; \$35, \$40; \$45

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 No. 22. 3.50 6.75
 No. 23. 6.00 12.00
 No. 24. 9.00 17.00

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No. 4. \$10 per set. Bronze, \$10; Nickel, \$15; Copper, \$20; Brass, \$25; Zinc, \$30; Zinc, \$35; Zinc, \$40; Zinc, \$45; Zinc, \$50

No. 5. \$10 per set. Bronze, \$10; Nickel, \$15; Copper, \$20; Brass, \$25; Zinc, \$30; Zinc, \$35; Zinc, \$40; Zinc, \$45; Zinc, \$50

No. 45. \$10 per set. Bronze, \$10; Nickel, \$15; Copper, \$20; Brass, \$25; Zinc, \$30; Zinc, \$35; Zinc, \$40; Zinc, \$45; Zinc, \$50

No. 55. \$10 per set. Bronze, \$10; Nickel, \$15; Copper, \$20; Brass, \$25; Zinc, \$30; Zinc, \$35; Zinc, \$40; Zinc, \$45; Zinc, \$50

No. 3. \$10 per set. Bronze, \$10; Nickel, \$15; Copper, \$20; Brass, \$25; Zinc, \$30; Zinc, \$35; Zinc, \$40; Zinc, \$45; Zinc, \$50

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 Sliding Door, R. & E. list. dis 50¢
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 Remington's (Lowman's Patent). dis 20¢
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 Lippincott, new list. dis 25¢
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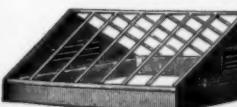
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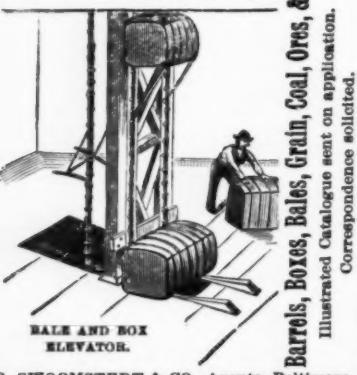
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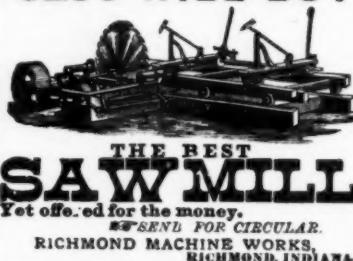


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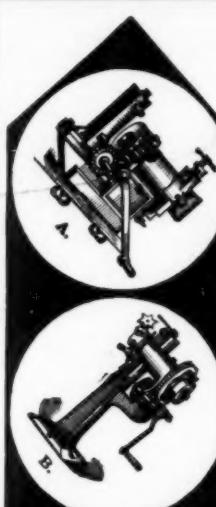
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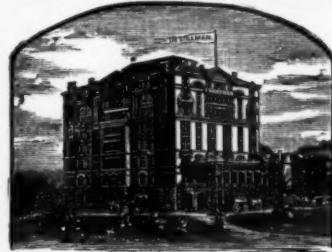
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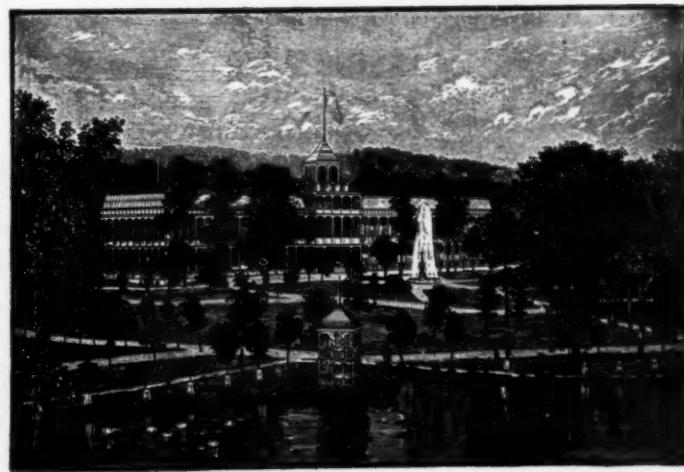
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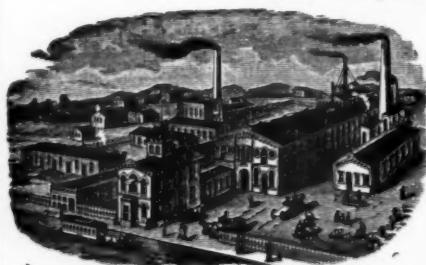
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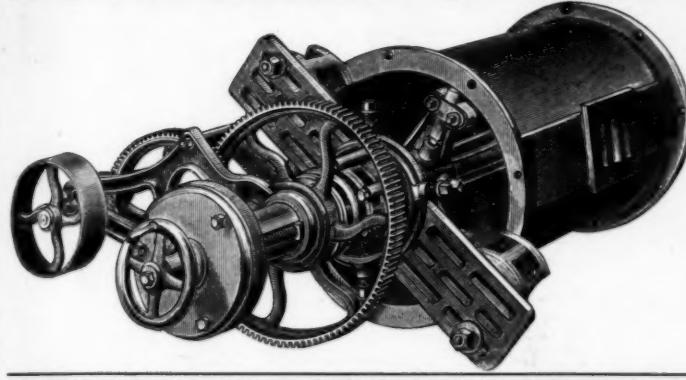
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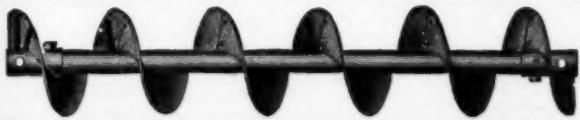
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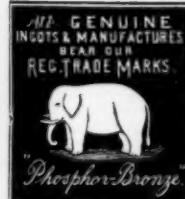
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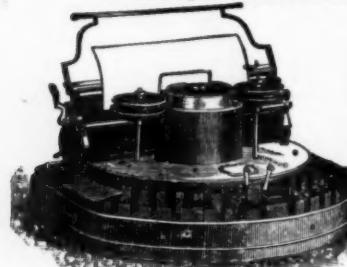
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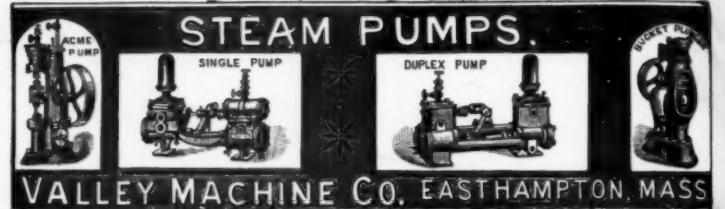
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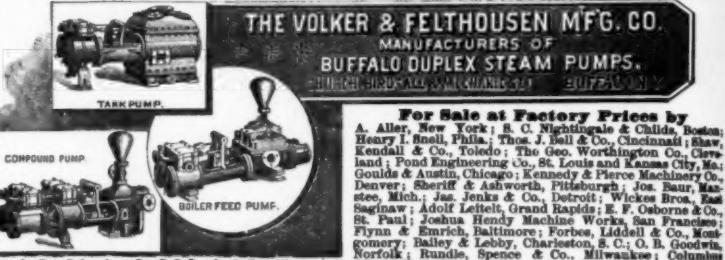


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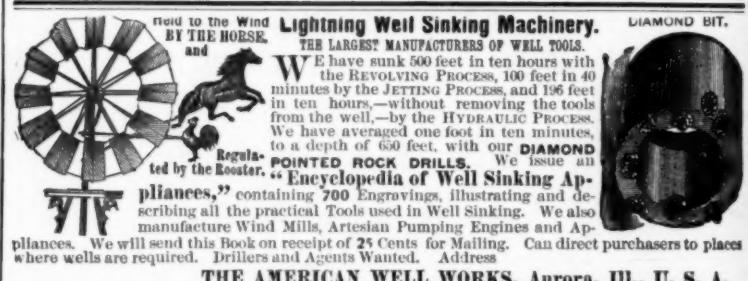


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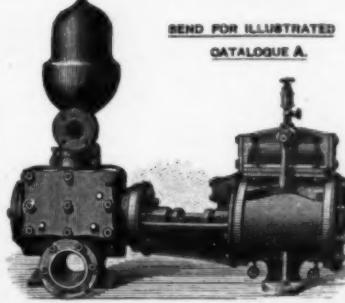


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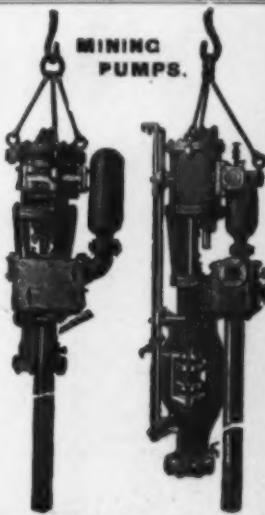
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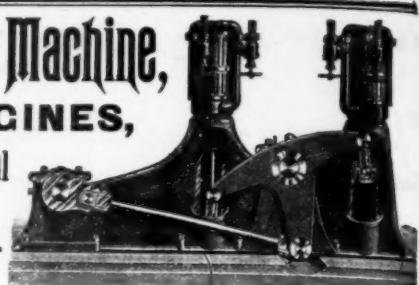
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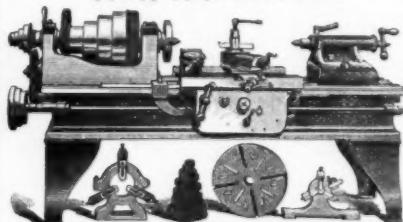
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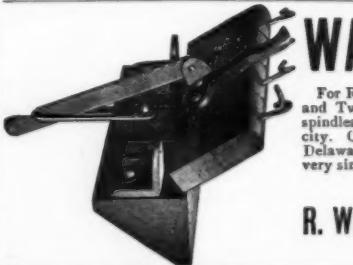
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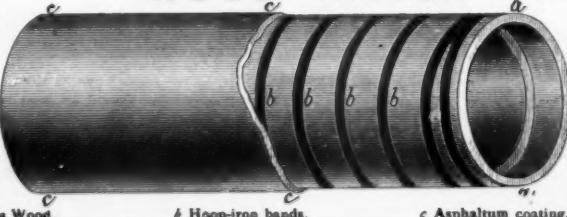
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